CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, March 19, 1908.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

(* denotes that *this work is advertised in Engineering News.*)

The following Plans (P.) and Specifications (S.) are on file and may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work. Place.	See issue.
3-21	Bldgs. and passages, Bremerton, Wash. ....(S.)	2-20
3-25	Ditch, Elbow Lake, Minn. ....(P. & S.)	2-27
3-25*	Basin, Springfield, Mass.....(S.)	2-27
3-25	Sanitary sewer, Jackson, Ohio. ....(P. & S.)	3-12
3-26*	Dam, etc., Rome, N. Y..(P. & S.)	3-12
3-27*	Navigation pass, Wheeling, W. Va. ....(P. & S.)	3- 5
3-28*	Hydrotherapeutic equipment, Hot Springs, S. Dak.............(S.)	3- 5
3-28	Sawmill, etc., New Orleans, La. ....(S.)	3- 5
3-28	Boilers, etc., Bremerton, Wash. ....(S.)	2-27
3-31*	Cement, Wheeling, W. Va...(S.)	3- 5
3-31*	Breakwater, Hawaii, T. H. ....(P. & S.)	2-13
4- 1*	Dredging, New London, Conn.(S.)	3- 5
4- 1*	Canal, Klamath Falls, Ore...(S.)	2-13
4- 1	Reservoir, Atlanta, Ga..(P. & S.)	3-19
4- 2*	Sewer, Louisville, Ky...(P. & S.)	3-19
4-15*	Dam, Portland, Ore..........(S.)	2-27
5- 1	Floating crane, Quebec, Que..(S.)	2-20
5- 1*	Reduction works, Columbus, Ohio ....(S.)	3- 5

LIST OF CONTRACTS PENDING.

LIGHT, HEAT AND POWER PLANTS.

At once.	substation, Hastings, Mich....	3-19
3-24	Supplies, Wash., D. C..........	3-19
3-25*	Wire, conduit, Wash., D. C.....	3-19
3-25	Power-house, etc., Marquette, Mich.	3-19
3-28	Boilers stack, etc., Bremerton, Wash.	2-27
3-30	Elec. equipment, New York......	3-19
3-31	Lighting system, Roanoke, Va..	3-19
3-31	Lighting, Roanoke, Va..........	3-19
3-31	Supplies, Wash., D. C..........	3-19
3-31	Lighting, Wilmington, Del......	3- 5
4- 1	Lighting, Mount Vernon, Ind.....	2-13
4- 6	Elec. supplies, Wash., D. C......	2-20
4- 7	Electric Plant, Lecompte, La.....	2-13
4- 7	Light plant, Fort Worth, Tex....	3-12
4-11	Conduit, etc., Bessemer, Ala.....	3-12
4-11	Conduits, etc., Portsmouth, Va..	3-12

BRIDGES.

3-20	Bridge floor, Columbus, Ohio....	3- 5
3-20	Steel bridge, etc., Spartanburg, S. C.	3-19
3-23	Bridges, San Bernardino, Cal....	3-19
3-23	Bridge, Hillsborough, N. B......	3- 5
3-23	Substructure, Sussex, N. B......	3-12
3-24	Bridges, Washington, Pa.........	3- 5
3-25	Bridge, Redwood Falls, Minn....	2-27
3-25	Bridge work, Independence, Mo..	3-19
3-26	Bridge fittings, etc., New York, N. Y.	3-19
3-27	Culverts, etc., Independence, Mo.	3-19
3-27	Superstructure, Milwaukee, Wis..	3-12
3-28	Culvert, Cleveland, Ohio..........	3-12
3-30	Superstructure, Newark, Ohio....	3-12
3-30	Bridges, South Bend, Ind........	3-19
3-31	Steel bridge, French Lake, Minn..	3-12
3-31	Bridge, etc., Buffalo, Minn.......	3-12
3-31	Bridge plank, Watertown, Minn..	2- 6
4- 3	Bridges, Copperhill, Tenn........	3-19
4- 4*	Bridge work, Salem, N. J.	3-19
4- 6	Steel bridge, St. Paul, Minn......	3-12
4- 6	Draw-bridge, Cathlamet, Wash....	3-12
4- 7	Bridges, Crawfordsville, Ind......	3-19
4- 7	Bridges, Valparaiso, Ind.	3-19
4- 7	Bridge, Kenmore, Ohio	3-19
4- 7	Bridges, La Moure, N. Dak.	3-19
4- 8	Steel bridges, Birmingham, Ala..	3-19
4- 8	Bridge, Brookings, S. Dak.......	3-12
4-10	Bridges, Fort Meade, S. Dak.....	3-19

BUILDINGS.

3-20	Warehouse, Winnipeg, Man....	3- 5
3-21	Building, Columbia, Mo........	3- 5
3-21	Buildings, Bremerton, Wash....	2-20
3-23	Plans, etc., Richmond, Va........	2- 6
3-23	School, Toledo, Ohio	3- 5
3-23	Ice plant (Mfg. Pl.), Riverside, Cal.	2-27
3-24	Post-office, Grand Rapids, Mich..	2-20
3-26	School, Stamford, Conn.........	3-12
3-26	Hospital, St. Paul, Minn.........	3-19
3-27	Building materials, New York.--	3-19
3-28	Sawmill, etc. (Mfg. Pl.), New Orleans, La.	2-27
3-30	Repairs, etc., New York, N. Y..	3-19
3-30	Heating, etc., New York, N. Y..	3-19
3-30	Buildings, Syracuse, N. Y......	3-19
3-30	Factory, etc., Stillwater, Minn. (Mfg. Pl.)	3-19
4- 1	City hall, Roanoke, Va..........	3-19
4- 1*	Heating, etc., Erie, Pa..........	2-27
4- 1	Hospital, Ft. Lincoln, N. Dak..	3- 5
4- 1	Building, Lincoln, Neb..........	3-12
4- 2*	Plumbing, etc., Los Angeles, Cal.	2-20
4- 4	Post-office, Corning, N. Y.......	2-27
4- 5	Building, Columbus, Ohio	3-19
4- 7*	Post-office, Nevada, Mo.	2-27
4- 7	Masonry, etc., Madison, Wis....	3-12
4- 8	Elevators, Wash., D. C..........	3-12
4- 8	Building, Elkins, W. Va.........	2-13
4- 8	Post-office, Portsmouth, Va......	3- 5
4- 8*	Building, etc., Rochester, N. Y..	3-19
4- 8*	Elevators, Wash., D. C..........	3-19
4- 9	Post-office, Dixon, Ill...........	3- 5
4- 9*	Heating, Tyler, Tex............	3- 5
4-10*	Post-office, Jackson, Miss.......	3- 5
4-11*	Post-office, Bessemer, Ala........	3- 5
4-14	Post-office, Tacoma, Wash......	2-27
4-15	Post-office, Ithaca, N. Y.........	3-12
4-23	Heating etc., Spokane, Wash....	3-19
4-28	Post-office, Watertown, S. Dak..	3-19
4-28*	Post-office, Crookston, Minn....	3-19

WATER-WORKS.

At once*	Water-works, Kenilworth, N. J.	3-19
3-20	Cast-iron pipe, Savannah, Ga....	3-12
3-20	Water-works improvement, Oklahoma City, Okla.	3-19
3-20	Gate valves,etc., Kansas City, Mo.	3-19
3-23	Water system, Clarkesville, Tenn.	3-19
3-24	Cast-iron pipe, Reading, Pa....	3-19
3-24*	Steam pump, Montreal, Que......	2-27
3-24*	Pump, Winnipeg, Man..........	3- 5
3-25	W.-Works, Hudson, Ohio	3- 5
3-25*	Basin, etc., Springfield, Mass....	2-27
3-26*	Cast-iron pipe, Wellesley, Mass.	3-12
3-26	Cast-iron pipe, Loyal, Wis.......	3-12
3-26*	Dam, etc., Rome, N. Y...........	3-12
3-26	Drain pipe, New York, N. Y....	3-19
3-27	Drain, Spokane, Wash...........	3-19
3-30	Water tower, Stillwater, Minn....	3-19
3-30*	W.-Works material, McGrawville, N. Y.	3-12
4- 1	Pumping station, Montezuma, Ga.	3- 5
4- 1	Reservoir, Atlanta, Ga...........	3-12
4- 2*	Pumping station, etc., Grand Rapids, Mich.......................	3-12
4- 2*	Dam, Berwick, Pa.	3-19
4-10*	Intake pier, Quindaro, Kan......	3-19
4-14	W.-Works, Maxton, N. C.........	3-12
5-18*	Water-works plant, Council Bluffs, Iowa	3-19

SEWERS.

3-20	Sewers, Marion, Ind.............	3-12
3-23	Sewers, Wellington, Kan.........	3- 5
3-23	Sewer pipe, Revere, Mass........	3-19
3-23	Sewer, Normal City, Ind........	3-19
3-24	Sewers, etc., New York, N. Y...	3-19
3-25*	Sewers, Bogota, N. J.............	3-19
3-25	Sewers, Corlett, Ohio	3-19
3-25	Sewers, Jackson, Ohio	2- 6
3-26	Sewer extension, Ft. Casey, Wash.	3-12
3-27	Sewers, etc., Remsen, Iowa	3-19
3-30	Sewer system, Tifton, Ga.	3-19
3-30	Sewers, etc., New York, N. Y....	3-19
3-30*	Sewers, St. Marys, Pa...........	2-20
3-31*	Sewers, Fort Morgan, Colo......	3-12
3-31*	Sewer, West Hartford, Conn....	3-19
4- 1	Storm sewer, Oakland, Cal.......	3-19
4- 1	Sewer pipe, Grand Island, Neb...	3-19
4- 2*	Sewer, Louisville, Ky............	3-12
4- 2	Sewers, Port Clinton, Ohio.......	3- 5
4- 3	Sewer system, Holdrege, Neb...	3- 5
4- 6	Pipe sewers, Moberly, Mo........	3-12
4- 6	Sewers, Lawrence, Kan.	3-19
4- 7	Sewer, La Mars, Iowa	3-19
4- 9*	Sewer, Grand Rapids, Mich......	3-19
4- 9	Sewer system, Canton, Miss.....	3-19
4-15	Sewer system, Fort Slocum, N. Y.	3-19

STREETS AND ROADS.

3-20	Asphalt plant, Cincinnati, Ohio..	3- 5
3-21	Grading, etc., Terre Haute, Ind..	3- 5
3-23	Paving, Bradford, Pa............	3-12
3-23*	Pavement, Ashland, Ky..........	3- 5
3-23	Macadam, Reno, Nev............	3- 5
3-23	Macadamizing, Danville, Ind.....	3-19
3-23	Paving, etc., Youngstown, Ohio..	3-19
3-24	Roads, Wilmington, Del.........	3-19
3-24	Broken stone, Ottawa, Ont.......	3-19
3-24*	Grading and macadam, Somerville, N. J.......................	3- 5
3-24	Street improvement, Gary, Ind...	3-12
3-24	Broken stone, New Brighton (S. I), N. Y.	3-12
3-25	Paving, Palestine, Tex...........	3-12
3-25	Repaving, Brooklyn, N. Y.......	3-12
3-25	Roads, Harrisburg, Pa...........	3-12
3-25	Grading, etc., Corsica, S. Dak...	3-19
3-25	Grading, etc., Louisville, Ky....	3-19
3-26	Broken stone, New York, N. Y..	3-19
3-26	Grading, etc., Cleveland, Ohio...	3-19
3-26	Roads, Harrisburg, Pa...........	3-12
3-27	Roads, Harrisburg, Pa...........	3-12
3-27	Road improvement, Cincinnati O..	3-12
3-27	Brick pavement, etc., Valparaiso, Ind.	3-12
3-27	Wood blocks, Minneapolis, Minn.	3-19
3-28	Grading, etc., Woodruff Place, Ind.	3-19
3-30	Paving, Asbury Park, N. J.....	3-19
3-30	Grading, etc., Minneapolis, Minn.	3-19
3-30*	Roads, Fort Morgan, Ala.......	3- 5
3-31	Gravel road, Fort Benjamin Harrison, Ind.	3-12
3-31	Paving, Augusta, Ga............	3-12
3-31	Sidewalks, Opelousas, La.	3-19
4- 1*	Roads, etc., Fort Wood, N. Y....	2- 6
4- 2*	Road, Phillipsburg, N. J.........	3-12
4- 2	Grading, etc., Rushville, Ind.....	3-12
4- 2	Sods, New York, N. Y.	3-19
4- 3	Pike reconstruction, Somerset Pa.	3-19
4- 3	Road, Harrisburg, Pa.	3-19
4- 4	Stone roads, Ramsey, N. J......	3-19
4- 4	Street improvement, Richmond, Ohio	3-19
4- 6	Gravel roads, Columbus, Ind. ...	3-19
4- 6	Road, Lawrenceburg, Ind........	3-19
4- 6	Gravel road, Hartford City, Ind..	3-19
4- 6	Roads, Knox, Ind.	3-19
4- 6	Road, Richmond, Ind.............	3-12
4- 6	Road, Vernon, Ind...............	3-12
4- 7	Road, Jasper, Ind...............	3-12
4- 7	Gravel road, Vincennes, Ind.....	3-12
4- 7	Broken stone, Bloomfield, N. J...	3-19
4- 7	Gravel roads, Martinsville, Ind...	3-19
4-13	Cement, Panama	3-12
5- 1*	Paving, San Salvador, Salvador, C. A.	3-12

MISCELLANEOUS.

3-20	Ditch, Hampton, Iowa	3-12
3-20	Timber, Ottawa, Ont.............	3-12
3-20	Ditch, Nevada, Iowa	3- 5
3-20	Rope, New York, N. Y...........	3-12
3-20	Cement, Ottawa, Ont............	3-19
3-21	Lumber, Chicago, Ill............	3-19
3-21	Ditching, etc., New Brunswick, N. J.	3-12
3-21	Pier, Racine, Wis................	3-12
3-23	Ditch, Chillicothe, Mo...........	3-12
3-23	Ditch, Hartford City, Ind........	3-12
3-23	Lumber, bulkhead, New York...	3-12
3-23	Metal furniture, Coshocton, Ohio.	3- 5
3-24*	Repairing dikes, New York......	2-27
3-24	Broken stone, New York, N. Y..	3- 5
3-24*	Dike, Harrisburg, Pa............	3- 5
3-24*	Retaining wall, Harrisburg, Pa..	3- 5
3-24	Stone, screenings, New York....	3-12
3-24	Hydrants, Louisville, Ky........	3-19
3-24	Cement, New York	3-19
3-24	Sign boxes, New York	3-19
3-24	Street signs, New York	3-19
3-25	Road roller, Indianapolis, Ind...	3-19
3-25	Fence, gates, Fort Riley, Kan....	3-19
3-25*	Pier extension, Frankfort, Mich.	2-27
3-25	Ditch, Elbow Lake, Minn.......	2-27
3-26*	Barge canal, Albany, N. Y.......	3- 5
3-27*	Navigation pass, Wheeling, W. Va.	2-27
3-28*	Hydrotherapeutic equipment, Hot Springs, S. Dak................	3- 5
3-28*	Keepers' dwelling, Tompkinsville, N. Y..........................	3- 5
3-30	Engineering supplies, Panama...	3-12
3-30	Fire extinguishers, New York...	3-19
3-30	Bicycles, New York, N. Y.......	3-19
3-31*	Cement, Wheeling, W. Va........	3- 5
3-31*	Breakwater, Hawaii, T. H........	2-13
3-31	Supplies, Des Moines, Iowa	3-12
4- 1*	Dock, wharf, New York, N. Y..	2-20
4- 1*	Dredging, New London, Conn...	3- 5
4- 1	Cement, Galt, Ont...............	3-19
4- 6*	Light-house, etc., Wilmington, Del.	3-19
4- 6*	Dredge machinery, Cincinnati, O.	3- 5
4- 6*	Dredging, dredging plant, Duluth, Minn.	3-12
4- 7*	Machinery repairs, Tompkinsville, N. Y.	3-12
4- 7*	Navigation pass, Wheeling, W. Va.	3-12
4- 7*	Dredging, New York, N. Y......	3-12
4- 9*	Ledge rock removal, Newport, R. I.	3-12
4- 9	Steel plate, Duluth, Minn........	3-19
4-10*	Dredging, New York	3-12
4-13	Cement, Panama	3-12
4-17*	Breakwater, Boston, Mass........	3-19
4-17*	Dredging, Detroit, Mich.........	3-19
4-28*	Rock removal, New York.......	3-19
5- 1	Floating crane, Quebec, Que......	2-20
5- 4*	Sea wall, wharves, San Francisco, Cal.	3-19
5-11*	Reduction works, Columbus, O...	2-20

FOREIGN.

3-22	Bridge, river improvement, Belgium	3-19
3-23	Port Construction, Bulgaria....	2-20
3-24	Canal locks, Belgium	3-19
3-25	Light-house, Brazil	3-19
3-25	Railway, Belgium	3-19
3-26	Road rollers, Spain	3-19
3-26	Port improvements, Brazil......	2-13
3-30	Cable laying, Spain	3-19
3-31	Railway hotel, Cape Colony	1-30
4- 1	Elec. railway, lighting, Brazil....	3-19
4- 2	Telephone system, Spain	3-19
4-10	Bridge, Netherlands	3-19
4-13	Cement, Egypt	3-19
4-14	Laying cables, Australia	3-19
4-25	Dredger, Argentina	2-13
5- 1	Elec. railway, Argentina........	11-21
5- 6	Ry. concession, Spain	3-19
5-26	'Phone material, Australia......	2-13

CIVIL SERVICE.

3-21	Clerk, Albany, N. Y...........	2-20
3-21	Junior Clerk, Albany, N. Y.....	2-20
3-25	Soil chemist, Washington, D. C..	3-19
3-25	Perspective draftsman, Washington, D. C.	3-19
3-25	Draftsman, etc., Washington D.C.	3-19
3-30	Meter inspector, New York, N. Y.	3-19
4- 1	Micro-analyst, Washington, D. C.	3-19
4- 1	Supt. road construction, Washington, D. C.	3-19

RAILWAYS.

ALTUS & HOLLIS.—Edward Kennedy, of Houston, Tex., has arranged for financing this proposed road from Altus, Okla., to Hollis, Tex. It is stated that Altus has offered a bonus of $22,500, Hollis has offered $45,000 and Duke, Tex., has offered $20,000 to be paid upon the completion of the road.

BALTIMORE & OHIO.—Announcement is made from the main office of this company that work will be resumed at once on about $500,000 worth of improvements which were started in the Pittsburg district months ago, but which were held up on account of the financial stringency. These improvements will be in western Pennsylvania, northern West Virginia and eastern Ohio. A new bridge across the Grand River at Fairport, Ohio, will cost about $125,000 and will be resumed also where work was left off last fall. New interlocking switches and a fourth track from Pittsburg to McKeesport will cost $165,000 and a new double-track from Fairmont, W. Va., to Braddock, Pa., will cost about $175,000. D. D. Carothers is Ch. Engr., Baltimore.

BROOKVILLE & MAHONING.—It is planned to havethat portion of the Brookville & Mahoning R. R. on the west side of the Allegheny River between Mahoning and Freeport, Pa., actually built and in operation on or before the end of this year. A spur will be built at Musgrove to connect with the Buffalo, Rochester & Pittsburg Ry., over which material will be received. Steam shovels will be put at work grading, etc., and it is estimated that the entire work will be completed in six months. The construction between Mahoning and Confer will not be done until 1909. H. S. Hastings is Secy., St. Marys, Pa.; W. W. Henshey, Ch. Engr., Brookville, Pa.

CALIFORNIA.—A proposition to build a railroad from Tustin, Cal., through Santa Ana, across the Santa Ana River and through the peat lands to Huntington Beach has been made by N. A. Ulm to the Merchants' and Manufacturers' Association and the Chamber of Commerce, of Santa Ana. Both of these associations gave their indorsement, and ordered that committees be appointed to secure subscriptions to stock. This line will be built by local capital and will be operated independently. Estimated cost, $150,000.

CAMILLA & NEWTON.—This company has been chartered in Georgia to build a railway from Camilla into Mitchell County, near Newton, along the banks of the Flint River. It will be ten miles in length. A bridge will be built across Flint River. Capital stock, $75,000. The incorporators are: C. Horace McCann, George Z. Eckels, W. S. Vidor and R. F. Bowler, of Atlanta, Ga.; Izzie Bashinski, of Dublin, Ga.; G. R. Boggs and Geo. C. Cochran, of Camilla, and R. L. Hill, Benton Odom and J. B. Perry, of Newton, Ga.

CAROLINA, CLINCHFIELD & OHIO.—The South & Western R. R. Co., which will operate from the coal fields of southwest Virginia to deep water at some point on the coast of North Carolina, has secured important amendments to its charter in Virginia. One amendment changes the name of the corporation to the Carolina, Clinchfield & Ohio Ry., and the other increases the maximum capital stock from $7,600,000 to $27,000,000. This is the road financed by George L. Carter, Pres. of the S. & W., Johnson City, Tenn. The amendments were applied for by J. Norment Powell, of Bristol, Tenn., who is counsel for the corporation. The S. & W. is now in operation from Johnson City to Altapass, Tenn., 70 miles. When completed the road will extend from Elkhorn, Ky., southerly to Spartanburg, S. C., a distance of about 285 miles. Construction on 139 more is largely completed. The road will develop the 285,000 acres of coal lands of the Clinchfield Coal Corporation, which it traverses. This property is owned by the Cumberland Corporation, which also controls the railroad. It is stated that there will be an issue of $15,000,000 bonds, secured by a mortgage on the road from Dante to Spartanburg, of which a sufficient amount will be reserved to retire the bonds of the constituent companies. The cost of the road to date is said to be about $18,000,000. M. J. Caples is Gen. Mgr. and Ch. Engr., Johnson City.

CHICAGO, BURLINGTON & QUINCY.—Work is to begin April 1 on the elevation of the Chicago yards of the C., B. & Q. and the Chicago & Northwestern, the largest and busiest in that city. The capacity of the yards, known as the Wood St. yards, is nearly 5,000 cars and through them from 3,000 to 5,000 cars are handled daily. The total expenditure involved, including an elevation through Austin by the Northwestern, will be nearly $3,500,000. Employment will be given to about 2,000 men, and 2,000,000 cu. yds. of filling will be required. The improvement includes a subway 1,500 ft. long that will cost $300,000. The Northwestern has 81 tracks in these yards and the Burlington about 55, or a total of 35 miles of tracks. W. L. Breckenridge is Engr., C., B. & Q., Chicago. E. C. Carter is Ch. Engr., C. & N.-W., Chicago.

COAL & COKE.—The Sutton Land Co., Sutton, W. Va., has executed a bond for $30,000, guaranteeing this road the right-of-way through Sutton. This was the last point at which work was held up, and the construction of this portion of the line will now be started within a few weeks, it is said. This section will be 40 miles in length, running from Gassaway, W. Va., to Holly Junction, via the Hollow River, Elk Mountain, Diana and Webster Springs. At Elk Mountain, a tunnel three-quarters of a mile in length will be constructed. Company now operates 183 miles of line, from Charleston, W. Va., to Elkins, and from Elkins to Belington. E. Bower is Act. Gen. Mgr., Elkins, W. Va.

CROW'S NEST & NORTHERN.—We are officially advised that contracts will be let about May 15 for building this proposed line. As noted on Feb. 27, this company has been incorporated to construct a standard-gage railway from a point on the Crow's Nest line to Michel, B. C., a distance of about 27 miles. The provisional directors are Russell G. Belden, J. H. Hemphill, C. L. Butterfield and A. E. Wayland, of Spokane, Wash. Headquarters are in the Peyton Block, Spokane.

GOLDSBORO UNION STATION CO.—Incorporated in North Carolina to build terminal tracks at Goldsboro, N. C., connecting the new union station now building with the three railways entering Goldsboro, the

Atlantic Coast Line, the Southern and the Norfolk & Southern. The capital stock is $15,000. The incorporators are: A. B. Andrews, H. W. Miller, C. N. Freeman, of Raleigh, N. C.; J. R. Kenly, W. N. Royall, of Wilmington, N. C., and W. R. Sullivan, of Atlanta, Ga.

* PADUCAH NORTHERN.—We are officially informed that surveys have been made by this company for its proposed line. It will build a 6-mile belt line at Paducah, Ky., and a trunk line about 14 miles long down the Ohio River to a point opposite terminal of the Cleveland, Cincinnati, Chicago & St. Louis Ry. and the Frisco lines. Right-of-way has not been secured. Geo. C. Wallace is Pres., Paducah, Ky.; Mark Wymond is Ch. Engr., Chicago. W. F. Bradshaw, Jr., is Atty., Paducah. Noted on Feb. 6.

SACRAMENTO & YOLO BELT LINE.—A. Curtis, C. R. Root, H. A. Read, D. A. Lindley and Charles Wesley, of Sacramento, Cal., have incorporated the Sacramento & Yolo Belt Line Railroad Co. The purpose of the new company is to construct and operate a line of standard-gage railway two miles in length. It is to begin at the intersection of Second St., in the town of Washington, opposite Sacramento, and the Sacramento River levee; thence south to the lands of the Reed orchard, and through it to the south boundary thereof to a point six chains from the crest of the levee on the west bank of the Sacramento River. The capital stock is $50,000, of which $5,000 has been subscribed.

SOUTH & WESTERN.—This company has changed its name to the Carolina, Clinchfield & Ohio Ry. and has increased its capital stock from $7,600,000 to $27,000,000. See under the new title of the company.

TRANS-CONTINENTAL.—Bids were received by P. E. Ryan, Secy. Trans-Continental Ry. Comn., Ottawa, Ont., on March 10 for the construction of the following sections:

District "A"—From a point about the 58th mile west of Moncton, N. B., to the crossing of the Intercolonial Railway at or about mile 97.7, a distance of 39.7 miles. The Grand Trunk Pacific Ry. was the only bidder.

District "A"—From a point at or about the crossing of the Intercolonial Railway by the Trans-Continental Railway at mile 97.7 west of Moncton to the Tobique River, at or about mile 165.7 less one mile, a distance of about 67 miles. Bidders were McDonald and O'Brien and the G. T. P.

District "A"—From a point at or near the Tobique River to a point shown on the said plans about 2½ miles west of the Town of Grand Falls, a distance of about 31.5 miles: Craig and Thompson, McDonald and O'Brien, M. P., and J. T. Davis, Kennedy and McDonald, Willard Kitchen Co., Trites and McPhail, Moore and Miller and the G. T. P.

District "B"—From a point at or near the boundary line between the Provinces of Quebec and New Brunswick, westerly a distance of about 52.4 miles: O'Brien and Fowler, M. P., and J. T. Davis, and the G. T. P.

Bids were received at the same time for the following:

District "D"—From a point about eight miles west of the Abitibi River crossing, Ontario, westerly for a distance of about 100 miles. Bidders were E. F. and G. E. Fouquier and the G. T. P.

District "E"—From a point about 19½ miles west of the crossing of Mud River, near Lake Nepigon, Ontario, easterly for a distance of about 75 miles: J. D. McArthur, E. F. and G. E. Fouquier, Chambers Bros., McQuigge & McCaffrey and the G. T. P.

When the contracts are awarded for these sections there will be under contract 1,223 miles of road from Moncton to Winnipeg. The total distance is 1,804 miles, leaving 581 miles still to be awarded. The names of the successful bidders will not be known for some time. The G. T. P. Co., as usual, bid for the construction of every section. It has been the policy of the G. T. P. to make competition certain and in this manner keep the total cost of the road down to the lowest point.

ELECTRIC RAILWAYS.

PITTSFIELD, MASS.—The Albany & Hudson R. R. Co. (operated by third rail system) is ready to build 22 miles of connection from Nassau, N. Y., to State line before Oct. 1, according to the Boston "Transcript." It also offers to spend $35,000 on Lebanon Mountain, according to agreement, before May 1, preparing for the connection of the proposed Troy, Albany & Pittsfield St. Ry., and will contract to build this season its six miles of connecting road from West Pittsfield to the State line. Sperry & McLaine, New Haven, Conn., Engrs., have made the surveys, plans and estimates. The road will cost about $1,000,000, and will run from Nassau through the following townships: East Nassau, Brainard, West Lebanon, New Lebanon, Lebanon Springs and Hancock. It is estimated that the six miles of connection of the Pittsfield road up Lebanon Mountain will cost $50,000 a mile. The route follows along the State road over Lebanon Mountain. A conference will be held in Pittsfield between Albany capitalists and the promoters concerning the matter. It is probable that the road will be built this year. R. H. Smith is Gen. Mgr. of the D. & H. Co., Albany.

OSSINING, N. Y.—Edward G. Benedict, a lawyer, 79 Wall St., New York, was appointed receiver of the Westchester Traction Co. of Ossining, by Judge Ward in the United States Circuit Court in New York on March 13. The company, which owns three miles of trolley road in Ossining, was consolidated with the Ossining Electric Railway Co. in 1902. A contract was made with the Industrial Contracting Co., of Philadelphia, to complete and equip 20 miles of the proposed extension of the company, and first mortgage bonds outstanding for that purpose were turned over to the contracting company. The application for a receiver was made by the contracting company in a suit for the recovery of $32,059, which it alleges to have advanced in the last four years to the Westchester Traction Co. to enable it to pay the interest on its outstanding bonds. A demand note for this amount was given on June 30, 1907, but it is alleged that payment has been refused on the note. The company has had considerable trouble with the authorities of Ossining, which stopped the operation of its line; and Attorney-General Jackson has since brought action to annul the charter of the company on the ground that it does not use its franchise, according to the New York "Tribune."

ELLWOOD CITY, PA.—J. T. Meckler, John M. Curry, J. N. Kirker and J. C. Keith, all of Ellwood City, are interested in plan to charter a company to build an electric railway from Ellwood City to Butler, Pa., via Wurtemburg. It is stated that sufficient money has been raised for the preliminary surveys, which will be started as soon as the company has been incorporated.

BALTIMORE, MD.—A bill has been introduced in the State Senate incorporating the Baltimore & North Branch Railway and Power Co. It is authorized to construct an electric line from a point on the northwestern boundary of Baltimore, and between the Western Maryland R. R. and the Windsor road and the North Branch and Liberty roads, in Baltimore County. It is authorized to haul persons, packages and parcels and to do a general freight business and also to fix its own rates. The authorized capital stock is $50,000, which may be increased to $500,000 by the directors. Those to serve for the first year are Messrs. B. John Black, William E. George, Isaac Price and George E. Lynch.

GREENSBORO, N. C.—A franchise has been granted to Charles L. Van Noppen and associates for building an electric street railway three miles in length. It is stated that work on the line will begin soon.

JESUP, GA.—D. G. Zeigler, Ch. Engr. of the Goose Creek R. R. & Power Mfg. Co., Columbia, S. C., states that company probably will begin work on its line about May 1. The line will extend from Jesup to Dock, a distance of about 24 miles. The motive power will be electricity. It is planned to operate 15 cars. The repair shops will be located in Jesup and the power station will be erected at Goose Creek. The company was incorporated on March 5 with a capital stock of $300,000. Noted on Feb. 27.

ATLANTA, GA.—The Atlanta & Carolina Railway Co. has secured from the Secretary of State an amendment to its charter, under which it is given the right to construct its line in other counties than those named in the original petition. The company has been granted the right to construct into or through the counties of Newton, Wilkes, McDuffie, Lincoln, Columbia, Richmond, Walton, Oconee, Clarke and Oglethorpe, and also to lay its track on certain streets in Atlanta, which are mentioned in the petition and regarding which agreement has already been reached with the City Council. Noted fully on Jan. 30.

BRIDGEPORT, ALA.—A 10-year franchise has been granted to C. A. Sutliff and associates, of South Pittsburg, Tenn., for operating an electric light and power system in Bridgeport, also the construction of a street railway system. It is the intention of this company to construct an interurban system to connect the towns of Bridgeport, Ala.; Copenhagen, South Pittsburg and Jasper, Tenn.

McMINNVILLE, TENN.—John Henderson, of McMinnville, is interested in an electric railway to be built from Cincinnati, Ohio, to Huntsville, Ala., which is to run via Nashville, Woodbury and McMinnville. Power to be generated at Caney Fork Falls, near McMinnville. Survey is reported to have been made.

COVINGTON, TENN.—The Memphis, Covington & Northern R. R. Co. has completed surveys for its proposed interurban electric line, which will connect Memphis and Covington, Tenn., 38 miles. The plans of the company have not been fully decided upon. Construction work may be started this summer. J. B. Gillespie is Pres., Covington, Tenn.; J. B. Witherington, Vice-Pres.; John T. Garner, Secy. and Treas.; R. W. Sanford, Attorney. The W. K. Palmer Co., 718 Dwight Bldg., Kansas City, Mo., is Engr., as noted on Nov. 21 and on Oct. 24, 1907.

DAYTON, OHIO.—C. H. Bosler, 816 Riebold Bldg., Dayton, Pres. of the Dayton Street Railway Construction Co., states that this company will build seven miles of double track line in Dayton. J. J. Hall is Secy., Dayton.

DECATUR, IND.—The Fort Wayne & Springfield Ry. Co. has filed notice of an increase of capital stock from $500,000 to $1,000,000 for the purpose of building an extension from Decatur to Richmond, Ind. An organization of representatives from various towns along the proposed route has been formed to co-operate with the company to secure the line. Noted on Dec. 26.

EVANSVILLE, IND.—The Evansville Terminal Ry. Co. will build a line from Evansville to Newburg, Ind., nine miles, to be operated both by electricity and steam. The Evansville Terminal Ry. Co., capitalized at $200,000, has been incorporated to construct and operate, in Indiana and elsewhere, street and interurban railroads, and plants for the distribution of electric and other heat, light and power and to deal in stocks and securities of other companies. The incorporators are Albert F. Karges, Marcus S. Sonntag, Wm. H. McCurdy, Jas. V. Rush and others. Messrs. Sonntag and McCurdy are Secy. and Pres., respectively, of the Evansville & Eastern Elec. Ry. Co., Evansville.

CHICAGO, ILL.—Permits for the rehabilitation of nearly ten miles of tracks have been obtained by the Chicago Railways Co. from Michael Doherty, Supt. of the Street Department, and the work will be commenced soon after March 25. The permits call for the rehabilitation of the tracks on North Clark St., between Washington St. and Addison Ave., and on Milwaukee Ave., between Desplaines and Robey Sts. The estimated cost of the work is $40,000 a mile. See Chicago item in issue of Feb. 6, under Electric Railways.

DES MOINES, IOWA.—The Des Moines, Winterset & Creston Elec. Ry. Co. will begin construction on its line as soon as financial arrangements are completed. The company has a 25-year contract with the Inter-Urban Railway and the Des Moines City Railway for terminal facilities in Des Moines and will use 5.7 miles of those companies' tracks from Valley Junction to a loop in the city. It has also made arrangements for freight terminals in Des Moines and has favorable franchises in Winterset, Macksburg and Creston, the latter being exclusive for 25 years. The line will be entirely on private right-of-way, 100 ft. wide, over 80 per cent. of which is now owned or contracted for. It is planned to erect a power plant and to sell current for lighting and power. The estimated cost of construction is $1,815,583. W. D. Skinner is Pres. and B. Schreiner is Ch. Engr. E. B. Steere is Gen. Mgr. Noted on Nov. 14.

BARTLESVILLE, OKLA.—Contract has been awarded to the FREEBORN ENGINEERING & CONSTRUCTION CO., Heist Bldg., Kansas City, Mo., for the overhead construction, tracklaying and installation of power-house machinery for the line between Bartlesville and Dewey, Okla., seven miles. The power-house equipment, including generators, engines, pumps and boilers, was purchased on March 6 from the JOHN A. STEWART ELECTRIC CO. of Cincinnati, Ohio. Rails, spikes, etc., were purchased from the ST. LOUIS RAIL & EQUIPMENT CO. It is planned to have the line in operation by June 15. J. J. Curl is Pres. Noted on Dec. 26.

OAKLAND, CAL.—The San Francisco, Oakland & San Jose Consolidated Ry. Co. has been formed with a capital stock of $7,750,000 for the purpose of consolidating the San Francisco, Oakland & San Jose Railway and the San Francisco & Bay Counties Railway, the latter having been recently incorporated to build an electric railway from San Francisco to San Jose, as noted fully last week. The company proposes to continue the operation of the three lines at present operated by the San Francisco, Oakland & San Jose, to construct a line from San Francisco to San Jose, to build a branch line to Northbrae and another branch to Claremont, and to connect the main line with Yerba Island by means of a tunnel. The directors are: F. M. Smith, F. C. Havens, E. A. Heron, H. Wadsworth and Dennis Searles, of San Francisco.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

CONCORD, N. H.—The Concord Electric Co. has decided to erect a steam power plant at Sewalls Falls to be used as an auxiliary to the water power plant. The present plan is to move the equipment from the Bridge St. station to Sewalls Falls, and to install new boilers, a 2-stage Curtis steam turbine and auxiliary apparatus. In addition to this plant the company will maintain the street railway plant at West Concord, and will have recourse to the steam plant at the Boston & Maine R. R. Co.'s shops. George B. Lauder is Supt., Concord.

HOLYOKE, MASS.—The Skinner Mfg. Co. is contemplating the erection of an electric power plant to supply the Whitcomb Building and other buildings owned by the company with electricity.

WEIR (Taunton post-office), MASS.—The citizens contemplate installing electric lamps in place of the naphtha lamps now in use. Abner Coleman is Mgr. municipal lighting plant, Taunton.

BUFFALO, N. Y.—Plans are being considered for the construction of a municipal conduit system. It is proposed to appropriate $100,000, of which $20,000 will be used at once, when available, to take possession of the space to which the city is entitled in the conduits used by the Cataract Power & Conduit Co. The remaining $80,000 will be used to make the connecting links in the conduits so that a more comprehensive system may be begun and through which the city buildings and streets may be lighted at a much lower rate than is now being paid to the General Electric Company. Francis G. Ward is Comr. Public Works.

SCHENECTADY, N. Y.—Plans are being prepared by the executive committee of the Schenectady Illuminating Co. for the removal of the Dock St. plant, which is now being used jointly with the Schenectady Ry. Co. as a substation, and for erection of a new and larger plant on the site of the Mohawk Gas Works on South Centre St. C. S. Van Dyke is Supt.

NEW YORK, N. Y.—Bids are asked until 11 a. m., March 30, by C. B. J. Snyder, Supt. School Bldgs., Bd. of Education, for electrical equipment for Public Schools Nos. 153, Boro. of Brooklyn, 17, Boro. of Manhattan, and 90, Boro. of Queens.

PITTSBURG, PA.—It is stated that the Duquesne Light Co., of Pittsburg, is considering the expenditure of about $4,500,000 for improvements, which include constructing a central power plant. George R. Webb is Pres.; E. W. Paul is Ch. Engr.

NEW CASTLE, PA.—The Pennsylvania Light & Power Co., Allegheny, Pa., will rebuild the plant destroyed by fire, it has been announced. J. E. Williamson, Allegheny, is Supt.

*WASHINGTON, D. C.—Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, D. C., has rejected all bids recently received for weatherproof and rubber-covered electric wire, switches, conduits, etc., for the Senate Office Building, and has asked for bids on the same material with modifications until noon, March 25.

Bids are asked until 2 p. m., March 30, by the District Commissioners for furnishing metal cabinet work, electric lighting fixtures, electrical clock system, and furniture and equipment, for use in the new Municipal Building, Washington.

WASHINGTON, D. C.—Bids are asked until March 24 at the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., to furnish at the navy yards and naval stations the following supplies: Mare Island, Cal., Schedule 855, 945 lbs. copper brass tubing, etc.; Portsmouth, N. H., Schedule 862, motor-driven punch. Bids will also be received until March 31 as follows: Mare Island, Cal., Schedule 871, 24 portable ammeters; miscellaneous interior fittings; 396 lbs. micanite [illegible]; miscellaneous spare parts and globes for arc lamps; 560 lbs. copper wire, miscellaneous sheet copper. Schedule 873, 13[illegible] steel tubing. E. B. Rogers is Paymaster-Gen.

ROANOKE, VA.—Bids are asked until March 31 by W. E. Th[illegible], City Clerk, for lighting the streets, [illegible] and public parks of the city with 250 or more electric arc lamps for a period of five years from Nov. 1, 1908, until Nov. 1, 1913. Bids will also be received for supplying electric current for lighting 250 or more arc lamps, also constructing and equipping a superstructure or overhead lighting plant or system, to be owned by the city, consisting of all the necessary fixtures, wires, poles, lamps, etc. W. B. Bates is City Engr.

ELKINS, W. VA.—The [illegible] Creek Light & Power Co., of this city has been incorporated with an authorized capital stock of $25,000, by P. B. Bl[illegible]field, C. W. Maxwell and J. E. Morgan, all of Elkins; W. S. Walker, Ligonier, Pa., and M. J. Brown, Frostburg, Md. The company will erect a plant to furnish this and surrounding towns with light and power.

PHILADELPHIA, MISS.—The Philadelphia Compress Co., Philadelphia, Miss., has in contemplation the erection of an electric light plant, plans for which are being prepared.

GULFPORT, MISS.—It is reported that the Gulfport & Mississippi Coast Traction Co. will increase the capacity of its plant by 1,500 KW. A turbine dynamo will be installed. Cost, $120,000. J. A. Jones, Gulfport, is Gen. Mgr.

OPELOUSAS, LA.—The city contemplates enlarging its lighting system, it is stated. E. T. Jones is City Electrician.

MONROE, LA.—The City Council has decided to increase the capacity of the electric light and water-works plants by the addition of a 600-HP. engine, 40-KW. generator, two 300-HP. boilers, an electric pump and all necessary connections and appliances. A. A. Forsythe is Mgr.

KNOXVILLE, TENN.—At a recent meeting of the City Council an ordinance was passed, granting a franchise to the French Broad River Power Co. This company has purchased property and intends to expend $3,000,000 in constructing a dam and power station five miles east of Knoxville. About 40,000-HP. will be developed.

HUDSON, OHIO.—Plans are being prepared by D. M. Hosford, Engr., Caxton Bldg., Cleveland, Ohio, for a water-works system, electric light plant and other municipal improvements. Bids will be received by the engineer the latter part of this month.

ROCKY RIVER, OHIO.—The Rocky River Water, Light & Power Co., Rocky River, contemplates installing new dynamos in its plant for the purpose of lighting the town. A. E. Stein is Supt.

HAMMOND, IND.—The Citizens' Light & Power Co. has been incorporated by Alexander J. Campbell and Johannes Kopelke to construct and operate an electric light and power plant. Capital, $50,000.

FRANKLIN, IND.—T. O. Ballard has been granted an electric light franchise for a period of 25 years, and is planning to erect a plant and install two gas producer units of 150 KW. each, alternating current.

GREENVILLE, MICH.—R. J. Tower has acquired the Middleton water power in North Greenville and has been granted a 30-year franchise to install an electric light and power plant and to distribute electricity in this city. He has been given the contract for city and street lighting for a period of ten years. Under the terms of the contract not less than 50 street lamps of 2,000 c. p. each, are to be used, at the rate of $50 each a year, to burn until 1 a. m., moonlight schedule, and $5 a lamp per year more when the lamps are lighted from 5 a. m. until daylight.

MARQUETTE, MICH.—Bids are asked by Luther L. Wright, Supt. of Public Instruction, Lansing, Mich., until March 25 for building a power-house, tunnel connections, and for furnishing and completing boilers, piping, etc., in connection therewith, at the Northern State Normal School, Marquette. Charlton & Kuenzli are Archs., Marquette, and 82 Wisconsin St., Milwaukee, Wis.

HASTINGS, MICH.—The Thornapple Gas & Electric Co. will receive bids for its proposed sub-station. It will be 16 × 20 ft., 12 ft. high, with semi-flat roof, 7 × 7-ft. wire tower in center, 6 ft. high, concrete roof, sides and floor; floor to be 2½ ft. above surrounding ground; double doors; three 12 × 12-in. ventilating windows; each wall on floor level.

JUNEAU, WIS.—W. G. Kirchoffer, Vrooman Bldg., Madison, Wis., is preparing plans for a 2-story power-house for this city. F. J. O'Neil is City Clerk.

MUSCODA, WIS.—SALMON & RASQUA, of Muscoda, have secured contract for the stone work required in rebuilding the Balmoral dam, which was damaged by floods in July last. The dam is situated three miles from Muscoda and is owned by the village. It is estimated that the cost to complete the proposed plant will be $15,000.

HELENA, MONT.—The Capital City Improvement Co. will begin the construction of a multi-cellular concrete steel dam across the Missouri River in this vicinity in the spring for the Capital City Power Co. It will have a head of 120 ft. and length of 1,500 ft., which will develop 30,000 HP. for

transmission at 70,000 volts, 3-phase, to cities and vicinities of Helena, Butte and Anaconda. There will be constructed about 40 miles of 70,000-volt transmission line. M. H. Gerry, Jr., Ch. Engr., and W. L. Miller, Engr.-in-Charge.

ARCADIA, MO.—Louis Miller and associates contemplate construction of concrete dam 400 ft. long and 50 ft. high, to develop 500 HP. for lighting and manufacturing plants. No machinery has been purchased and no engineer has been engaged.

CASSVILLE, MO.—The Cassville & Western Ry. Co. contemplates erecting a power-house. S. M. Mitchell is Pres. and Gen. Mgr.

FARMINGTON, MO.—Plans and specifications are in course of preparation for a municipal electric light plant for Farmington, Mo., the cost of which is estimated at $25,000. It is expected that plans will be completed and submitted for bids about April 1. Thomas B. Carter is Engr.-in-Charge.

PINE BLUFF, ARK.—The Pine Bluff Light & Water Co. has completed plans and will award contracts soon for erection of proposed light and water plant. B. C. Fowles, Pine Bluff, is Mgr.

YOAKUM, TEX.—Philip Welhausen and others are interested in contemplated installation of electric light plant. It is proposed to erect dam on river eight miles from city to furnish power for light plant and other industries.

CORPUS CHRISTI, TEX.—The City Council has granted a gas franchise to C. H. Pattison.

TEXARKANA, TEX.—Dawes & Harrison are negotiating with the City Councils for a franchise to furnish Texarkana with natural gas from the Caddo fields, 45 miles from here. Rufus C. Dawes, New York Life Bldg., Chicago, Ill., is Vice-Pres. Texarkana Gas & Electric Light Co.

LYONS, COLO.—The Rocky Mountain Hydro-Electric Co. will build a plant on North St. Vrain Creek, near Lyons. A wood stave pipe will convey water from junction of Cabin Creek over and down east slope of Cook Mountain. About 6,000 HP. will be developed, and construction work has already commenced. Frank V. Gay is Pres., Clay Center, Kan.; Alan G. Wilson, Secy., Clay Center, Kan.; R. M. Jones is Ch. Engr., Denver; L. H. Dieterich, Res. Engr., Lyons, Colo.

DENVER, COLO.—The Denver Gas & Electric Co., Denver, Colo., is arranging for extensions to its plant during the coming summer, which will involve the expenditure of about $50,000. Practically all of this sum will be applied to the improvement of the gas department, which will include a stack of ten benches, six retorts each, together with the necessary ironwork required. An operating floor, constructed of I-beams and steel plates, will also be built. About $20,000 of the above sum will be devoted to the extension of street mains, meters, etc. L. E. Malone is Supt. of the Gas Dept.

COQUILLE, ORE.—The Coquille Valley Power Co. has its plans and specifications ready for a power plant to be constructed at the head of Brewster Valley, development of which will supply Coos County with a light and power system with capacity of 4,000 HP. minimum. Water will be flumed for a distance of about 5,000 ft., when it will be given a 300-ft. fall through a pipe line to the power house. The company has secured a 3-acre site for power-house and 120 acres for reservoir site. Power will be transmitted to Myrtle Point, Coquille, Marshfield, North Bend and Bandon. There will be two units in water wheels and two electrical units, being in duplicate. Work of locating, etc., has been under direction of J. S. N. Smith, Consult. Engr., Ashland. Surveying has been done by A. N. Gould.

KERNVILLE, CAL.—It is reported that the Edison Electric Co. of Los Angeles, will commence work on the construction of a power plant on the Kern River next August. The plant, it is stated, will be located in the canyon above Kernville, and will involve an expenditure of $1,000,000. F. C. Finkle will have charge of the work.

PASADENA, CAL.—The citizens have voted favorably upon the question of issuing $100,000 of bonds for lighting improvements, which include construction of lines of poles, wires and apparatus for the distribution in the form of electric lights, the construction of an outfall sewer in the eastern section of the city. Herman Dyer is City Clerk.

SAN FRANCISCO, CAL.—The Clear Lake Power & Irrigation Co. has filed articles of incorporation for the purpose of using the overflow water of Lake County for irrigation purposes and for the generation of electricity, with a capnital of $10,000,000, it is reported. Incorporators: J. W. Reeves, 2413 Washington St., Gilbert Boalt, Joseph B. Kennedy and others. Charles S. Wheeler, 2413 Washington St., San Francisco, Attorney for the company, is reported to have stated that the company owns 200,000 acres in Yolo County, which will be irrigated with water from Clear Lake. The irrigation system is partly constructed. About 45,000 HP. will be generated and transmitted to San Francisco and neighboring cities.

LOS ANGELES, CAL.—Bids were received as follows on March 17 at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the electric wiring work in the Los Angeles post-office: General Electric Co., San Francisco, $16,248, 6 months; Southern California Electric Co., Los Angeles, $16,400; N. P. Thye & Co., Ltd., Los Angeles, $18,890; Meacham & Babcock, Seattle, Wash., $14,987, July 31, 1909; F. O. Engstrom Co., Los Angeles, $16,598; MacBryde Electric Co., Fort Wayne, Ind., $18,500; Agutter-Griswold Co., Seattle, $14,833; Woodill & Hulse Electric Co., Los Angeles, $16,250; R. T. Fletcher, Columbus, Ohio, $17,400; Foulkes-Gaylord Co., Los Angeles, $17,350, July 1, 1909; Wm. A. Corrao Electric Co., St. Louis, $14,300; Standard Electric Construction Co., San Francisco, $16,765; F. E. Newberry & Co. of California, Los Angeles, $13,400; J. P. Buchanan & Co., Philadelphia, $22,222, Sept. 15, 1908; Northwestern Electric Co., St. Paul, Minn., $18,887; Wm. E. Chase Engineering Co., Spokane, Wash., $16,750. Time to complete, Sept. 1, 1909.

GOLDFIELD, NEV.—The Nevada-California Power Co. has let the contract for the construction of a dam on Middle Lake to COLLINS & YOUNG, of Los Angeles, Cal. The dam will be 1,100 ft. long, 75 ft. high at the highest point. C. D. Poole is Mgr.

SALT LAKE CITY, UTAH.—The UNION IRON WORKS, Moline and Palmetto Sts., Los Angeles, Cal., has been awarded a contract amounting to $4,676 for furnishing about 336 ft. of steel pressure pipe for the power-house, Strawberry Valley irrigation project, Utah.

Contract has been awarded to HENRY GARDNER, of Spanish Fork, Utah, for the erection of the power transmission line under the Strawberry Valley irrigation project, Utah. This transmission line, which is about 30 miles in length, will consist of a pole and wire line for the transmission of electric power from the U. S. Reclamation Service power plant near the mouth of Spanish Fork Canyon to the west portal of the Strawberry tunnel, where it will be used for the completion of the tunnel, a portion of which is already built. The price of the contract is $4,156.

TORONTO, ONT.—The Dominion Power & Transmission Co., recently incorporated, with a capital stock of $25,000,000, will commence construction as early as possible in the spring. S. C. Crowell, of Toronto, Ont., is interested.

HAMILTON, ONT.—The Special Power Committee has appointed T. W. Sothman, Engr. of the Hydro-Electric Power Comn., Toronto, to draw up the specifications for the proposed municipal street lighting and power plant for this city.

PRINCE ALBERT, SASK.—Charles H. Mitchell, C. E., Traders' Bank Bldg., Toronto, Ont., has prepared an estimate of the cost of developing power for the city at Steep Creek on the Saskatchewan River. He states 10,000 HP. can be developed for $350,000 and 100,000 HP. for $1,000,000. The city has decided to develop power on the river in question. C. O. Davidson is City Clerk.

NEW WESTMINSTER, B. C.—S. S. McDiarmid, Vancouver, for the Sunset Power Co., has made application for 15,000 ins. of water from Quanli River.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

BRIDGEPORT, CONN.—Plans have been prepared for strengthening the lower bridge on Stratford Ave., and have been approved by the Director of Public Works. Estimated cost, $17,000.

BLOOMINGBURG, N. Y.—The Middletown & Wortsboro Turnpike Co. has decided to replace the bridge over the Shawangunk Kill, at Bloomingburg with a new structure. Bids will soon be asked. R. C. Tuthill, 238 Main St., Middletown, N. Y., is Secy.

NEW YORK, N. Y.—Bids are asked until 2 p. m., March 26, by James W. Stevenson, Comr. of Bridges, for furnishing and delivering pipe rails, railing posts, and fittings to the Brooklyn bridge.

JERSEY CITY, N. J.—The Street and Water Board on March 9 approved the Pennsylvania R. R. Co.'s plans for the construction of a street bridge which the company is to erect at a cost of $35,000, across Newark Ave. at Sixth St.

*SALEM, N. J.—Bids are asked until 2 p. m., April 4, by the Special Committee on Courses Landing bridge, Court House, Salem, for the construction of an additional length of 14 ft. to the present draw-bridge, and moving back the fixed span a like distance of 14 ft. William M. Carter, Woodbury, N. J., is Engr.-in-Charge. Daniel V. Summerill is Chn. Com.

SPARTANBURG, S. C.—Bids are asked by the Spartanburg County Commissioners, Spartanburg, S. C., until March 20 for construction of steel bridge 330 ft. long and 16 ft. wide at Clifton No. 2, and for dirt fill at East Main St. bridge, fill to be let per cu. yd. W. Frank West is Supervisor; S. M. Bagwell is Clk.

ROME, GA.—The County Commissioners contemplate having constructed several concrete bridges in place of iron ones.

JACKSONVILLE, FLA.—The County Commissioners will have bridges constructed over Big Pottsburg Creek and Silversmith Creek. G. L. Barnard is County Engr.

BIRMINGHAM, ALA.—We are officially advised that the date for opening bids for the construction of steel and highway bridges has been extended from March 10 to April 8. P. S. Milner is County Engr.

KNOXVILLE, TENN.—The Board Public Works will soon ask for bids for the construction of the Vine Ave. viaduct over First Creek.

COPPERHILL, TENN.—Bids are asked until noon, April 3, by the County Bridge Committee of Polk County, Tenn., for the construction of three steel highway bridges over different streams in the county. B. H. Case is Engr.-in-Charge, Copperhill, Tenn.

TOLEDO, OHIO.—M. RABBITT & SONS CO. were awarded the contract on March 7 by the city for the construction of a temporary span for the Cherry St. bridge. Frank Consaul is Ch. Engr. Bd. Pub. Ser.

MIDDLETOWN, OHIO.—The County Commissioners have adopted plans and specifications for the construction of a bridge over the canal at Tytus Ave. Estimated cost, $14,300.

KENMORE, OHIO.—Bids are asked until April 7 by the Board County Commissioners, Akron, Ohio, for furnishing material and constructing a bridge over the Ohio Canal at Kenmore, to consist of a steel superstructure and a concrete substructure on a piling foundation. Mark D. Buckman is County Audr.

DAYTON, OHIO.—Plans are being prepared for a 7-span concrete-steel bridge, about 700 ft. in length, to be constructed across Great Miami River, near Monument and Salem Aves.

BALTIC, OHIO.—The contract for constructing the superstructure of bridge at Baltic, bids opened March 2, has been awarded to LENTZ & ACKERMAN, Baltic, Ohio.

CINCINNATI, OHIO.—Bids are asked until April 7 by the Board Trustees, Cincinnati Southern Ry. Co., Ingalls Bldg., Cincinnati, for constructing the piers, abutments and retaining walls for the substructure of the viaduct for the terminal track from Eighth St. and McLean Ave. to Third and Front Sts. Ward Baldwin is Ch. Engr.

CRAWFORDSVILLE, IND.—Bids are asked by the County Commissioners until 11 a. m., April 7, for the construction of three bridges and the repair of several other bridges in Montgomery County. B. B. Engle is County Audr.

SOUTH BEND, IND.—Bids are asked by the County Commissioners until 11 a. m., March 30, for the construction of two concrete arch bridges in Penn Township. John W. Harbow is County Audr.

VALPARAISO, IND.—Bids are asked by the County Commissioners until 10 a. m., April 7, for the construction of various bridges. Stephen P. Corboy is County Audr.

LA MOURE, N. DAK.—Bids are asked by E. W. Field, County Audr., until 2 p. m., April 7, for the construction of wood and steel bridges, for furnishing corrugated, galvanized, metal culverts, as may be ordered during the year 1908.

FORT MEADE, S. DAK.—Bids are asked until 10 a. m., April 10, by Capt. L. C. Scherer, Constructing Q. M., U. S A, for the construction of bridges and culverts.

INDEPENDENCE, MO.—Bids are asked until 11 a. m., March 27, by Oscar Koehler, County Surv., for constructing three 3-ft. stone arch culverts, two 4-ft. stone arch culverts, constructing rubble masonry abutments for bridge and for remodeling steel truss bridge, and until 1 p. m., March 25, for the following bridge work: Constructing 33-ft. I-beam steel superstructure, a 15-ft. I-beam steel bridge, a 17-ft. I-beam bridge, and 20-ft. I-beam bridge, also for constructing concrete abutments for two bridges and rubble masonry abutments for another bridge.

CANON CITY, COLO.—The counties of Fremont and Teller will jointly have a bridge constructed over Four-Mile Creek connecting the road from Florence to Cripple Creek.

WAPATO, WASH. — The BURRELL BRIDGE & CONSTRUCTION CO., Oakland, Cal., has been awarded the contract by the County for the construction of the Wapato combination wood and iron bridge, at $10,739.

PORTLAND, ORE.—We are officially advised that the NORTHWEST BRIDGE CO. was awarded the contract on March 4 by the Executive Board for the construction of a reinforced concrete bridge 558 ft. long on East 28th St. across Sullivan Gulch, at $64,400. List of bidders noted Feb. 27. Douglas W. Taylor is City Engr.

SAN BERNARDINO, CAL.—Bids are asked by Charles Post, City Clk., until 11 a. m., March 23, for the construction of three bridges

PASO ROBLES, CAL.—The Modern Steel Structural Co. submitted the lowest bid on March 3 to the Board of Supervisors for the construction of the steel and concrete bridge on the Shandon road across the Salinas River here, at $14,240.

REGINA, SASK.—The Provincial Public Works Department has awarded the contract for the construction of the reinforced-concrete bridge and dam here to the PARSONS CONSTRUCTION CO. The bridge will be 900 ft. long and 42 ft. wide. F. J. Robinson is Deputy Comr. Pub. Wks., Regina, Sask.

VANCOUVER, B. C.—We are officially advised that the contract for the construction of the substructure and temporary bridge over False Creek was awarded on March 9 by the city to WADDELL & HARRISON, Kansas City, Mo. N. A. Clement is City Engr.

E. G. PRIOR & CO., LTD., Victoria, B. C., have been awarded the contract for the metal required for the superstructure of the new swing bridge over the north arm of the Fraser River, south of Vancouver, B. C., at $8 per 100 lbs. The bridge will have a total length of 2,300 ft., with pivot pier and draw rest.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

BROOKLINE, MASS.—Shenley, Rutan & Coolidge, Archs., Ames Bldg., Boston, have prepared plans for a dental school building to be erected at Brookline. Cost, $140,000.

BOSTON, MASS.—The general contract for constructing the L. G. Burnham Memorial Hospital has been let to HORTON & HEMENWAY, 583 Atlantic Ave., and plumbing to M. J. COLLINS, 121 Boston St., South Boston. Cost, $150,000. Maginnis & Walsh are Archs., 100 Boylston St.; J. R. Worcester & Co. are Steel and Concrete Engrs., 79 Mi.. St.

SALEM, MASS.—We have been officially informed that the general contract for constructing a high school building here has been let to WOODBURY & LEIGHTON CO 386 Dorchester Ave., South Boston. The terra cotta contract has been let to the NEW JERSEY TERRA COTTA CO., 108 Fulton St., New York. Kilham & Hopkins, 9 Park St., Boston, are Archs.

NEW BEDFORD, MASS.—S. C. Hunt, Arch., Odd Fellows' Bldg., New Bedford, has started on preliminary sketches for a public building to cost $300,000.

HARTFORD, CONN.—The plans of W. D. Johnson, Arch., 26 State St., Hartford, for the addition to the Arsenal School District building have been approved by the Building Committee, Charles W. Skinner, Chn. No bids will be advertised for, but the plans and specifications in detail may be seen at the office of Mr. Johnson. The District contemplates expending about $80,000 on this construction, and has been authorized to issue bonds for that purpose.

MERIDEN, CONN.—The Armory and Arsenal Commission has accepted the plans of C. S. Palmer, 11 Colony St., Meriden, for the erection of the proposed $90,000 armory in Meriden. The plans contemplate a red brick building with limestone trimming, 178 ft. long and 145 ft. wide. There will be three towers, a main central tower and two smaller ones. The drill hall will be 96 × 150 ft.

NEW YORK, N. Y.—We are officially informed that Schwartz & Gross, 347 Fifth Ave., are preparing plans for a 6-story apartment building, 80 × 100 ft., at 89th St. and Amsterdam Ave., for the Silverman-Jones Construction Co., 17 W. 17th St. The building will be constructed of terra-cotta, brick and stone, architectural and structural iron and steel, with galvanized iron skylight, interior marble and tile, patent plaster, electric fixtures, water closets, lavatories and bath tubs. Cost, $100,000.

Alfred H. Taylor, Arch., 6 East 42d St., is preparing plans for a 1-story and basement bank building for the Union Dime Savings Bank to cost $300,000.

NEW YORK, N. Y.—Bids are asked until 9.45 a. m., March 27, by the Board of Health for furnishing and delivering timber, lumber, molding, etc., to the Tuberculosis Sanatorium, at Otisville, Orange County, N. Y., during the year 1908.

NEW YORK, N. Y.—We are officially advised that the NEW JERSEY TERRA COTTA CO., 108 Fulton St., New York, has secured contracts for all terra-cotta work for the Seaman's Home, to be built at Jane and West Sts. Boring & Tilton, 32 Broadway, are Archs.

Warren & Wetmore, Archs., 3 East 33d St., have completed plans and will receive bids about April 1 for a 7-story residence, 50 × 81 ft., to be built at 47 and 49 East 52d St., for W. K. Vanderbilt, 660 Fifth Ave. The building will be constructed of brick, stone and reinforced concrete.

The bids received on March 5 for interior work in the Queens County Court-House are as follows: George Hildebrand, 38 Park Row, New York, $165,800; Charles Wille, $185,992; L. A. Burke Sons & Co., $189,00.; James A. Stevenson, $205,100, and N. E. Constr. Co., $231,473. Joseph Bermel is Boro. Pres.

NEW YORK, N. Y.—We are officially advised that Uhlfelder & Weinberg, 132 Nassau St., will receive bids in about ten days for three 5-story brick and stone stable and storage buildings to be erected on 80th St., near Ave. A. Each building will be 25 × 90 ft. All the buildings will be joined. Gross & Kleinberger, Bible House, are Archs.

Plans for the proposed new Borough Hall for the Borough of Queens have been prepared by Charles H. Caldwell, Arch., 160 Fifth Ave., New York, under the direction of Joseph Bermel, Boro. Pres., who has been authorized by the Board of Estimate to prepare the plans. The plans of the building provide for a 4-story and basement fireproof brick structure with projecting wings and with a frontage of 200 ft. on Court St., and a depth of 120 ft. on Thomas Ave. The first three floors will contain offices of departments and the fourth floor will contain the Surrogate's office and a court-room.

EDMUND GROSSMAN has general contract for a 4-story amusement building for the Sulzer's Harlem River Park Amusement Co. Estimated cost, $100,000.

NEW YORK, N. Y.—Carrere & Hastings, Archs., 225 Fifth Ave., advise us that estimates will be received within a month for a 5 and 6-story brick and stone dwelling, 25 × 95 ft., to be erected at 5 East 67th St. The building will cost $60,000 and will be owned by Samuel H. Valentine, 44 East 57th St.

ASTORIA (L. I.), N. Y.—We are officially advised that H. Horenburger, 522 East 159th St., New York, is preparing plans for a Masonic Temple to be six stories high and to be erected at Astoria. Mr. Horenburger desires prices and catalogs on wood, iron and tile work, electrical fixtures, tile roof, plumbing, heating, marble, brick, interior woodwork, concrete, lamps, ornaments, Masons' and lodge furniture, etc. Bids will be received in about three months. The building will be 42.6 × 100 ft., and will cost $180,000.

SYRACUSE, N. Y.—Archimedes Russell and Melvin L. King, Archs., Snow Bldg., Syracuse, are preparing plans for remodeling the former court-house into a city building, to be occupied by the Bureau of Education and Police Department. Estimated cost, $100,000.

YONKERS, N. Y.—We are officially informed that GEORGE T. KELLY, Washington Park, Yonkers, has secured general contract to construct city hall here. The contract for terra-cotta has been awarded to the NEW JERSEY TERRA COTTA CO., 108 Fulton St., New York. E. A. Quick, 18 South Broadway, Yonkers, is Arch.

UTICA, N. Y.—John A. Hobbes, Arch., Stewart Bldg., Utica, is completing plans for the proposed 2-story and basement McMillan Grammar School building for the Board of Education. Dennis Kelley, Clerk. Cost, $125,000.

G. Edward Cooper, Clarendon Bldg., Utica, is completing plans for a 2-story and basement school building, at Seymour Ave. and Nelson St., for the Board of Education, Dennis Kelley, Clerk. Brick and Indiana limestone will be used for construction. The cost will be $125,000. Bids will be received by the Board in about 60 days.

AUBURN, N. Y.—S. E. Hillinger, Seward Bldg., Auburn, and H. Van Buren McGonigle, New York, Archs., have rejected bids and will revise plans and call for new bids for a 4-story high school building, 70 × 222 ft., at Auburn. The building will be constructed of press brick, stone trimmings, with slate

roof, galvanized iron cornices and skylights, structural and ornamental iron, hardwood finish, tile floors, gas and electric fixtures, lavatories, water closets, bath tubs and mechanical steam heat. Cost, $150,000.

ROCHESTER, N. Y.—J. Foster Warner, Granite Bldg., has been authorized to prepare plans for a 2-story brick addition to No. 26 School, at the corner of Clifford and Thomas Sts. Bids will be received by Board of Contract and Supply about April 5. The addition will cost about $70,000.

Bids were received as follows March 12, at the office of James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an extension to the post-office at Rochester, N. Y.: George Sykes, 1123 Broadway, New York, $97,970, Jan. 1, 1910; Ambrose B. Stannard, St. James Bldg., New York, $93,598; Conners Bros. Co., Lowell, Mass., $104,500; F. T. Nesbit Co., 116 Nassau St., New York, $104,000, 14 months; Cramp & Co., Commonwealth Bldg., Philadelphia, $101,135; Hermann Probst, New York, $120,500; R. T. Ford Co., 200 South Ave., Rochester, N. Y., $102,857, 480 days; Gorsline & Swan Construction Co., Powers Bldg., Rochester, N. Y., $110,151, 11½ months; Fred Gleason, Rochester, N. Y., $99,789; H. H. Edgerton, Rochester, $101,858; A. Friedrich & Sons Co., Rochester, N. Y., $99,973, 12 months; W. H. Fissell & Co., New York, $93,700. Time to complete, March 1, 1910.

*ROCHESTER, N. Y.—Bids are asked until 3 p. m., April 8, by the State Commission in Lunacy, Capitol, Albany, N. Y., for constructing superintendent's residence and changing old boiler-house to kitchen. T. E. McGarr is Secy. Comn.; Franklin B. Ware is State Arch., Albany.

ROME, N. Y.—John A. Hobbes, Stewart Bldg., Utica, has been retained to prepare plans for a 2-story and basement County-home, to be built at Rome for the County Board of Supervisors, Fred F. Lorin, Chn. Estimated cost, $150,000.

BUFFALO, N. Y.—The Ellicott Club, William H. Lyons, Pres., 1000 Ellicott Sq., will invite competitive plans for a club building, to be erected at the corner of Church and Franklin Sts. The building is to accommodate 1,000 members. The site measures 77 ft. on Church St. and 93 ft. on Franklin St. Cost, about $200,000.

WAMPSVILLE, N. Y.—Eight architects have been invited to prepare plans, to be submitted on March 31, for the proposed jail and court-house to be erected in Wampsville, to cost about $150,000. James A. Loyster, of Cazenovia, N. Y., is Chn. Bldg. Com.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. School Bldgs., Bd. of Education, until 11 a. m., March 30, for installing heating and ventilating apparatus in Public Schools Nos. 5 and 140, Boro. of Brooklyn; and in Public Schools Nos. 20 and 96, Boro. of Manhattan, and 89, Boro. of Queens. Also for equipment of cooking school and workshop in Public School No. 29, Boro. of Brooklyn; alterations and repairs to Public School No. 47, Boro. of Manhattan; glass to be furnished in various schools in Boro. of Manhattan.

SYRACUSE, N. Y.—Bids are asked by A. E. Perren, Chn. of the Grounds Com., State Fair Comn., Yates Hotel, Syracuse, until 3 p. m., March 30, for the entire work of constructing the Manufacturers' and Liberal Arts Building, to be erected on the State Fair Grounds at Syracuse, N. Y. The estimated cost of the building is over $200,000. The plans for the building were drawn by Green & Wicks, Archs., 110 Franklin St., Buffalo, N. Y. Franklin B. Ware is State Arch.

ATLANTIC CITY, N. J.—Henry D. Dagit, Arch., 435 Chestnut St., Philadelphia, Pa., has let contract to J. S. ROGERS CO., Stanwick, N. J., for erecting a 2-story school building for the Roman Catholic Church of Our Lady of the Sea, Atlantic City, at about $50,000.

PATERSON, N. J.—Floyd Y. Parsons, Arch., 1133 Broadway, New York, has let mason contract to A. VER DUIN, 138 East Holsman St., Paterson, N. J., and carpenter work to P. S. VAN KIRK, 620 Madison St., Paterson, for a 3-story brick and stone club building, 50 × 140 ft., for the Elks' Club & Home Association, Paterson. Cost, $72,000.

WEST NEW YORK (Weehawken post-office), N. J.—Joseph Turch, Arch., 770 Bergenline Ave., Union Hill, N. J., is preparing plans for a 3-story school building for the Board of Education. It is estimated that the structure will cost $90,000.

PHILLIPSBURG, N. J.—C. S. Adams, Arch., Drury Bldg., Philadelphia, Pa., has let contract to J. S. ROGERS CO., Stanwick, N. J., for a 3-story addition to high school building for the Board of Education. A. H. Wilson, Chn., Phillipsburg. Cost, $50,000.

BAYONNE, N. J.—Rowland & Eurich, 15 Exchange Pl., Jersey City, N. J., will prepare plans for a high school building for the Board of Education, Bayonne. Estimated cost, $150,000.

PASSAIC, N. J.—John F. Kelley, Post-office Building, Passaic, and Davis & Davis are preparing plans for high school, to cost about $200,000.

LEWISTOWN, PA.—Charles W. Bolton & Son, Archs., Witherspoon Bldg., have plans about ready for bids for a 1-story church for the First Presbyterian Congregation, Lewistown, Pa. The church will be built of brick, with stone trimmings, open plumbing, tile work, electric fixtures, slate roof, steam heat and stained glass. Cost, $60,000.

WILKES-BARRE, PA.—Contract has been awarded to the ENGINEERING-CONTRACTING CO., American Bldg., Baltimore, Md., to erect a theater here for S. Z. Poli, 23 Church St., New Haven, Conn., to cost $200,000. A. E. Westover of Philadelphia is Arch.

PHILADELPHIA, PA.—Schneider & Irkin, York Road and Erie Ave., Philadelphia, write us that plans are out for four stores and 96 dwellings to be erected on the north and south side of Erie Ave. east of Tenth St., east and west sides of Seventh St. and west side of Marshall St., north of Erie Ave. Contracts for work on the buildings are being awarded from time to time. Plans were prepared in the office of Schneider & Irkin, and total estimated cost of buildings is about $250,000.

Plans have been prepared by J. F. Bradley, Arch., 1001 Chestnut St., for a 4-story double flat building to be erected at 33d and Arch Sts. The construction will be brick, stone and terra cotta, with slag roof, open plumbing, mantels, tile work, plate and leaded glass, hardwood finish, gas and electric fixtures and steam heat. Estimated cost, $100,000.

J. M. Hendricks has obtained permits to erect ten 3-story brick dwellings, measuring 16 × 56 ft. each, on the east side of Schuyler St., south of Manheim; 14 3-story brick dwellings, 16 × 56 ft. each, on the west side of Schuyler St., south of Manheim, and four 3-story brick dwellings, 16 × 56 ft. each, on the north side of Clapier St., west of Schuyler St. At the northwest corner of Clapier and Schuyler Sts. he will build four 3-story brick dwellings, 16 × 60 ft. each, on the south side of Manheim St., west of Schuyler and at the southwest corner of Manheim and Schuyler St., and four 3-story brick dwellings, 16 × 60 ft. each, on the south side of Manheim St., east of Schuyler St., and at the southeast corner of Manheim and Schuyler Sts. The operations will cost $216,000.

DARLINGTON, PA.—We are officially advised that the following bids were received on March 16 by Philip H. Johnson, Arch., Land Title Bldg., and the City Commissioners, Philadelphia, for erecting a 4-story House of Detention at Darlington. The bids were as follows: George A. Glenn & Co., 930 North Eighth St., 9 months, $136,413; John R. Wiggins & Co., Heed Bldg., 175 days, $136,650; Sox & Abbott, 7 months, $137,900; Charles McCaul Co., 360 days, $141,771; James G. Doak & Co., 320 days, $141,898; Herbert E. Havens, 8 months, $145,967; Mitchell Bros., 270 days, $146,000; Lynch Bros., 200 days, $146,940; Roydhouse, Arey & Co., 260 days, $147,000; Henry E. Baton, 250 days, $147,083; Cramp & Co., 275 days, $147,588; M. P. Wells, 280 days, $147,719; A. Raymond Raff, 11 months, $154,300; S. E. & A. Pennock, 320 days, $155,671; Filbert Paving & Construction Co., 300 days, $173,000.

WILMINGTON, DEL.—John T. Windrim, Arch., Commonwealth Bldg., Philadelphia, Pa., has awarded contract to WILLIAM D. HADDOCK & CO., 804 Orange St., Wilmington, for erecting a 1-story banking house, 50 × 75 ft., for the Security Trust & Safe Deposit Co., of Wilmington. Contract price, about $80,000.

BALTIMORE, MD.—John Hiltz & Sons, 3 Clay St., have secured the contract to rebuild the Masonic Temple, making it a 5-story structure. Cost, about $350,000.

WASHINGTON, D. C.—Awards have been made as follows by Bernard R. Green, Supt. of Construction, National Museum Building, Washington, D. C., on the bids opened Feb. 20, for material and construction in the Museum Building: Venetian mosaic flooring in main hall and ranges in basement and all three halls and the ranges, together with three risers at stairway on second floor, to AMERICAN MOSAIC CO., 1241 Seventh St., N. W., Washington, D. C., at $66,065. Marble wall base to WILLIAM BRADLEY & SON, 90 West St., New York, $10,798. Terra cotta fireproofing to O. W. KETCHAM, Philadelphia, Pa., $21,700. Furring, lathing and plastering to McNULTY BROS., Railway Exchange, Chicago, Ill., at $77,000. Granolithic flooring in attic to BRENNAN CONSTRUCTION CO., 3056 K St., Washington, D. C., at $6,045, and in one room in basement at 12 cts. per sq. ft. Ornamental iron work to BROWN & KETCHAM IRON WORKS, 2549 West Michigan St., Indianapolis, Ind., at $28,800. Noted fully on Feb. 27.

Bids were received as follows on March 14, by the Commissioners of the District of Columbia for the construction of a 16-room school building: Pavarini & Wyne, Munsey Bldg., $99,400; Burgess & Parsons, Philadelphia St., $99,700; J. L. Parsons, $112,733; C. A. Langley, 310 Twelfth St., $106,686; Milton Co. Davis, Baltimore, $98,478; George A. Fuller Co., Munsey Bldg., $97,500; Thompson & Starrett, $111,251; Boryer & Smith, $106,500; R. T. Humphreys, $105,900; J. M. Dunn, 30th and P Sts., N. W., $105,559. All bidders of Washington, D. C., unless specified.

*WASHINGTON, D. C.—Bids are asked until noon, April 8 by Elliott Woods, Supt. Capitol Bldg. & Grounds, Washington, for electric passenger elevators for the Office Building of the U. S. Senate.

Bids were received as follows March 11 at the office of Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, D. C., for (a) wood frames and sashes, (a1) erection thereof, (b) metal frames and sashes; (b1) erection thereof, for the Senate Office Building: American Car & Foundry Co., Wilmington, Del., (a) $14,853; E. Van Norden Co., Baltimore, (b) $25,734, (b1) $4,000; J. W. Bishop, Worcester, Mass., (a) $20,281; Veneered Door Co., Athens, Ohio, (a) $12,790, (a1) $3,990; A. & S. Wilson Co., Pittsburg, (a) $14,210, (a1) $4,675; Lyster Sheet Metal Co., Philadelphia, (b) $20,167, (b1) $2,200; G. Elias & Bro., Buffalo, (a) $17,752, (a1) $7,985; S. Keighley Metal Ceiling & Mfg. Co., Philadelphia, (b) $47,571, $73,884, $84,767, (b1) $4,352; David Lupton's Sons Co., Allegheny Ave., Philadelphia, (a) $10,726, (b) $33,284, $53,398, $52,844, $87,596, $25,519, $40,178, $45,893, $76,948, $25,365, (b1) $3,387; J. F. Blanchard Co., Fuller Bldg., New York (b) $31,190, (b1) $3,564; Hekla Iron Works, Brooklyn, N. Y., (b) $98,500, (b1) $30,000; J. S. Thorn & Co., Philadelphia, (b) $28,830, (b1) $4,200; Chesapeake Iron Works, Baltimore, (b) $50,055, (b1) $11,167; E. B. Badger & Sons, Boston, Mass., (b) $24,900, (b1) $6,900; Otto Duker & Co., Baltimore, (a) $14,258; John W. Rapp, New York, (a) $16,902, (b) $41,413, (b1) $4,875; J. C. Vreeland Building Co., 1 Madison Ave., New York, (a) $15,449, (a1) $4,118; Charles A. Langley, Washington, (a) $14,126, (a1) $3,586; John MacGregor, Washington, (a) $19,800; Thomas W. Smith, Washington, $14,821; Joseph L. Crupper, Washington, (a) $14,144; Athens Lumber Co., Athens, Ohio, (a) $18,580, (a1) $3,300; Joseph Thomas & Son, Baltimore, (a) $17,372, (a1) $15,768; Allegheny Cornice & Skylight Co., Allegheny, Pa., (b) $25,000, (b1) $4,300 (telegraphic bid).

Bids were received as follows March 11, at the office of Elliott Woods, Supt. of the U. S. Capitol Building and Grounds, Washington, D. C., for laying the roof-covering and placing skylights in the new Senate Office Building: David Lupton's Sons Co., Philadelphia, $12,782; American Standard Fireproofing Co., Washington, $7,321; Warren M. Wright, Washington, $9,130; W. E. Robertson, Washington, $3,000.

FORT MEYER (Washington, D. C., post-office), VA.—We are officially advised that contracts have been let on bids received Feb. 24, by Capt. B. B. Hyer, Constr. Q. M., at this post: THOMAS H. MELTON, 621 F St., N. W., Washington, D. C., construction proper, of all buildings under alternative A, with stone foundations, for the lump sum of $141,995; electric wiring, for all the buildings, $2,240; lighting fixtures, in all buildings, $1,460; gas piping, in three double lieutenants' quarters, $625. HEALY PLUMBING & HEATING CO., 277 West Third St., heating apparatus in all buildings, lump sum, $7,755. Owing to the fact that few bidders complied with paragraph 176, of the specifications, the award for plumbing has not been made. Noted on March 12.

LYNCHBURG, VA.—Lewis & Burnham, Archs., National Bank Bldg., Lynchburg, have submitted plans to contractors to erect building for First National Bank, 37 × 132 ft., two stories high, exterior of Georgia marble, interior marble wainscoting, bronze rails, marble flooring, etc. Cost, $70,000; fixtures, $15,000 additional. P. Thornton Marye, Atlanta, Ga., is Associate Arch.

ROANOKE, VA.—Bids are asked until April 1 by W. E. Thomas, Clerk City Council, for erecting an addition to the City Hall; a separate bid to be submitted for excavating the basement of said addition. W. B. Bates is City Engr.

NORFOLK, VA.—The Monticello Realty Co. will expend about $60,000 to improve Monticello Hotel, Granby St. and City Hall Ave., including the addition of 71 private baths. Entire heating, lighting and refrigerating plant (including boilers and elevators) is to be improved, cost of which is not included in estimate stated. D. Lowenberg, Columbia Bldg., is Pres.; Garry D. M. Sherman, Mgr.; J. K. Peebles, Law Bldg., is Arch.

GREENSBORO, N. C.—The Executive Committee of State Normal College has awarded contract for erecting the McIver Memorial Building (science building to JOHN T. HUNT & CO., and plumbing to ADAMS & HUNT. The proposals for the heating and ventilation are to be let at future meeting. The central section of building is to be erected at once at cost of about $60,000. Hook & Rogers, Charlotte, N. C., are Archs. About $40,000 is to be expended on wing to be added in 1909.

ST. AUGUSTINE, FLA.—The Realty & Theater Co. has awarded contract to the FALL CITY CONSTRUCTION CO., Louisville, Ky., for erection of 4-story office building and theater. Plans were prepared by Fred A. Hendrich. Cost, $75,000.

LOUISVILLE, KY.—The plans prepared by McDonald & Dodd, Lincoln Bldg., for a 7-story hotel to be built at Third Ave. and Jefferson St., have been accepted by Owen Tyler, Trustee of the Tyler Estate. The hotel will cost about $200,000.

COLUMBUS, OHIO.—Bids are asked until April 5 (postponement from March 15), for erecting a fireproof business block, to cost $300,000, for the F. & R. Lazarus Co. Richards, McCarthy & Bulford, The Ruggery, Columbus, are Archs.

CINCINNATI, OHIO.—Harry Hake, Union Trust Bldg., is preparing revised plans for the building which is to be erected for the Provident Savings Bank & Trust Co., at Vine and Seventh Sts. The building now contemplated is to be ten stories high, instead of 15 as at first proposed, and the cost is to be about $200,000.

CLEVELAND, OHIO.—Lehman & Schmitt, Garfield Bldg., have been commissioned to prepare plans for a synagogue to be erected at the corner of Euclid Ave. and East 82d St., and to cost $100,000. Architects are working on preliminary plans.

The Board of Public Service, City Hall, has let mason contract to JOHN GRANT & SON, 1338 Schofield Bldg., for a buff press brick with polished granite market house, at West 25th St. and Lorain Ave., S. W. Cost, $218,000. Bids were received on Feb. 25 by A. R. Callow, Secy. Bd. Noted on March 5.

YOUNGSTOWN, OHIO.—Owsley & Boucherle, Wick Bank Bldg., Youngstown, will be ready for bids in about two weeks for the erection and equipment of the banking and office building that will be erected here for the Dollar Bank. The building will be of brick, steel and stone construction, will be heated by steam and will have an electric power plant.

ELWOOD, IND.—The First Spiritualist Church Trustees have ordered plans and will ask for bids soon for the erection of an Orphans' Home on an 80-acre site near this city. The probable cost is $100,000.

MADISON, IND.—The commission appointed to build the South Eastern Indiana Hospital for the Insane, at Madison, has forfeited the contract awarded to E. M. Campfield, of Finley, Ohio, and will relet the contract for completing the work. The contract price was about $1,000,000. Considerable work has been done by Mr. Campfield.

PEORIA, ILL.—WILLIAM M. ALLEN SONS & CO., secured the general contract, at $139,875, for the erection of the manual training high school building. L. W. Moorehouse is Chn. Bldg. Com. Robert J. Hotchkiss is Arch., Dime Savings Bank Bldg., Peoria.

CHICAGO, ILL.—Albert S. Hecht, Arch., 143 Dearborn St., will prepare plans for a theater building, having 1,800 seating capacity, on Diversey Boulevard, near Evanston Ave., for Alexander P. Cr[illegible]well, Charles E. Affeld and others. It will have two stories, 84 × 150 ft., built of press brick, with either cut stone or terra cotta, concrete and fireproof construction. Estimated cost, $150,000.

J. E. O. Pridmore, Arch., 168 Dearborn St., will receive estimates until March 23 on a theater building to be built at 63d and Halsted Sts., for the Englewood Stock Co., M. Clifford, proprietor. It will have four stories, 85 × 150 ft., and will be of press brick with stone trimmings and fireproof construction. Cost, $100,000.

Plans have been completed by Hecht & Schmid, 165 Randolph St., for a 5-story reinforced concrete warehouse, 100 × 112 ft., at Washington and Peoria Sts., for J. W. Allen & Co., 208 Washington St. Bids will be received by the architects. Cost, $80,000.

MILWAUKEE, WIS.—Hood & Tullgren, Archs., 86 Michigan St., have filed plans for a 3-story apartment house to be erected on Farwell Ave. and Keene St., and to cost $85,000.

LA CROSSE, WIS.—We are officially advised that bids were received by the State Board of Normal Regents, Madison, on March 12, for the erection of a brick 3-story normal school building, 190 × 1[illegible]0 ft., at La Crosse. Cost, $192,000. J. A. Peacock is Pres., Oconomowoc, Wis.; Van Ryn & De Gelleke are Archs., 211 Merrill Bldg., Milwaukee; William Kettle, Madison, Wis., is Secy. Contracts have been let as follows: General contract, STERLING ENGINEERING & CONSTRUCTION CO., Milwaukee, Wis., $156,975; plumbing, BAKER & NIELNER, La Crosse, $9,443; heating, DOWNEY & KRUSE CO., Milwaukee, $22,177.

ST. PAUL, MINN.—Bids are asked until March 26 by N. P. Langford, Chn., and O. J. Tong, Secy., of the City and County Board of Control, for the general construction of the 4-story pressed brick and cut stone addition to the City Hospital. It will be 45 × 100 ft., of fireproof construction, with signal, telephone and lighting system. Cost, $120,000. C. H. Johnston, Manhattan Bldg., city, is Arch.

*CROOKSTON, MINN.—Bids are asked until 3 p. m., April 28, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for complete construction of U. S. post-office at Crookston.

WATERTOWN, S. DAK.—Bids are asked until 3 p. m., April 28, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for construction, including plumbing, gas piping, heating apparatus, electric conduits and wiring, of the U. S. post-office at Watertown.

BUTTE, MONT.—It is stated that announcement has been made by the Chairman of the Board of County Commissioners that work upon the proposed court-house will begin May 1, the plans having been adopted. The building will cost $750,000, and it is proposed to build one wing on the vacant lots west of the court-house, into which the officers will move, after which the present structure will be torn away and the other wing completed.

EXCELSIOR SPRINGS, MO.—Louis Curtiss, Arch., 1114 McGee St., Kansas City, Mo., will receive figures on general contract for a 4-story brick, stone and reinforced concrete hotel, 200 × 200 ft., for the Elms Realty Co., Excelsior Springs, Mo. Cost, $150,000.

GALVESTON, TEX.—H. P. Sargent, Comr. Gen. of Immigration, Washington, D. C., has accepted proposal of George B. Stowe, 3112 22d St., Galveston, to prepare plans for Government immigration station to be erected at Galveston. Congress has appropriated $70,000, of which $50,000 will be used for station and $20,000 to build landing wharf. The site has frontage of 500 ft. on channel and depth of 1,000 ft. The city will appropriate $10,000 for laying water main under the channel to supply water, it is stated.

SEATTLE, WASH.—Silas Archibald is planning to erect a 16-story steel and brick building at Second Ave. and Stewart St., to cost $375,000. Four stories are to be erected at the present time and provision will be made for others as needed.

SPOKANE, WASH.—A building permit for the proposed Palace store building to be built at the corner of Main Ave. and Post St. has been issued to the Lincoln Investment Co. and calls for a 6-story brick building with full basement, costing $175,000.

Bids are asked until 3 p. m., April 23, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for steam heating and ventilating apparatus, etc., complete in place, for the U. S. post-office, court-house and custom-house building at Spokane.

PRINEVILLE, ORE.—Bids are asked until 10 a. m., March 28, by Warren Brown, Clerk County Court of Crook County, for the construction of superstructure of the proposed court-house; also for completing the basement. W. D. Pugh, Fenton Bldg., Portland, Ore., is Arch.

WINNIPEG, MAN.—Herbert B. Rugh, Arch., Union Bank Bldg., is preparing plans for two apartment blocks, each to cost $200,000.

Warren & Wetmore, 3 East 33d St., have completed plans for a 3-story railroad station to be built at Winnipeg, Man., for the Canadian Northern and the Grand Trunk railways. The building will be constructed of brick and stone. Bids will be received about April 1.

MOOSE JAW, SASK.—The School Board will build a Collegiate School for ladies at a cost of $100,000, it is stated. William Grayson is Chn.

Coaltman & Cloakley, Archs., Regina, Sask., are preparing plans for a 5-story apartment block to be erected here at a cost of $120,000.

WATER SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

NEWPORT, N. H.—The town voted on March 11 in favor of expending between $14,000 and $17,000 to enlarge the water supply system. Frank A. Rogers is Town Clk.

ASHBURNHAM, MASS.—Parker, Bateman & Chase, Consulting Engrs., Fitchburg, Mass. have prepared plans for an earthen dam with a concrete core, a concrete valve tower and three dikes, for the Nashua River Reservoir Co., Fitchburg.

BREWSTER, N. Y.—The contract for laying water pipe and fixtures and constructing a concrete reservoir has been awarded to JOHN C. TIERNEY, Hoboken, N. J., at $9,251.

OGDENSBURG, N. Y.—The Board of Water Commissioners on March 9 decided to retain an engineer to estimate upon the cost of a filtration plant.

NEW YORK, N. Y.—Bids are asked until 3 p. m., March 26, by the Park Board for furnishing and delivering vitrified stoneware drain pipe. Henry Smith is Pres. Bd.

OSWEGO, N. Y.—We are officially advised that the city voted on March 10 in favor of constructing the New Lake water system. Charles Snyder is City Engr.

*VERONA, N. J.—Date for receiving bids, which were asked until March 30, for constructing a system of pipe lines to embrace approximately 1,000 tons cast-iron pipe, 20 tons special castings, 86 fire hydrants and 114 valves, has been indefinitely postponed. This cancels the advertisement appearing in this issue. Walter E. Sexton is Engr.-in-Charge, 46 North Twelfth St., Philadelphia, Pa.

*KENILWORTH, N. J.—Bids are asked at once by the Kenilworth Water Co., 220 Broadway, New York City, for the installation of a water-works system, consisting of a water-tower, pumping station, and about six miles of pipe. Estimated cost, $35,000. C. C. Vermeule, 203 Broadway, New York, is Consulting Engr. W. L. Scott is Treas., 220 Broadway, New York.

READING, PA.—Bids are asked until 7.30 p. m., March 24, by the Board of Water Commissioners for furnishing cast-iron pipes and specials, gate-boxes, fire hydrants, corporation cocks, and for laying water pipes, at the Maidencreek pumping station. James J. Burns is Secy. Bd.

*BERWICK, PA.—Bids are asked until noon, April 2, by the Berwick Water Co. for the construction of concrete and earthen dam and improvements to reservoir across Glen Brook. T. Chalkley Hatton, Wilmington, Del., is Consulting Engr. Clarence G. Crispin is Vice-Pres., Berwick, Pa.

*PHILADELPHIA, PA.—We are officially advised that the following bids were received on March 3 by the Department of Public Works for pumping engines for the Roxborough and Belmont pumping stations: (a) two 5,000,000-gal. engines for the Roxborough station, (b) two 10,000,000-gal. engines for the Belmont station: The SNOW STEAM PUMP WORKS, 115 Broadway, New York, (a) $78,700 (awarded contract), (b) $114,000; Walter Wood, 400 Chestnut St., Philadelphia, (a) $108,750, (b) $122,000; BETHLEHEM STEEL CO., South Bethlehem, Pa., (a) $87,500, (b) $88,520 (awarded contract); the William Tod Co., Youngstown, Ohio, (a) $89,470, (b) $110,940; Allis-Chalmers Co., Milwaukee, Wis., (a) $86,700, (b) $107,900; D'Olier Engineering Co., 121 South Eleventh St., Philadelphia, (a) $93,134; Southwark Foundry & Machine Co., Washington and Fifth Sts., Philadelphia, (a) $90,000, (b) $109,500; Filbert Paving & Construction Co., 904 Pennsylvania Bldg., (a) $73,000, (b) $99,300 (informal). George R. Stearns is Dir. Pub. Wks. Fred C. Dunlap is Ch. Water Bureau.

SHARON, PA.—We are officially advised that the FRED. M. PRESCOTT STEAM PUMP CO., 60th and Greenfield Aves., Milwaukee, Wis., have been awarded the contract by the Sharon Water-Works Co., Sharon, for a 6,000,000-gal., triple-expansion condensing pumping engine.

NEW CUMBERLAND, PA.—The Riverton Consolidated Water Co. will erect a $50,000 reservoir near New Cumberland in order to supply a number of towns in the upper end of the county. The new reservoir will hold 50,000,000 gals. and will have a pressure of 50 lbs.

CHARLOTTE, N. C.—The ATLANTIC BITULITHIC CO., Mutual Bldg., Richmond, Va., has been awarded the contract for laying water mains here, at about $30,000. T. S. Franklin is Mayor.

ATLANTA, GA.—Plans and specifications are on file at the office of Engineering News, New York, for the construction of the reservoir for the Atlanta Water-Works. About 125,000 cu. yds. excavation will be required. Bids are asked until April 1.

FORT BARRANCAS, FLA.—We are officially advised that the contract for the 200,000-gal. reinforced concrete reservoir was awarded on March 12 to the SOUTHERN FERRO-CONCRETE Co., Atlanta, Ga., at $12,820.

FORT MORGAN, ALA.—The McKAY ENGINEERING CO., Baltimore, Md., has been awarded the contract, at $7,912, for the construction of nine cisterns here.

CLARKSVILLE, TENN.—Bids are asked until March 23 by Thomas R. Rick, Pres. Board of Trustees, Memphis, Tenn., for furnishing material and constructing a water supply system at the Odd Fellows' Home here.

HUDSON, OHIO.—See under Light and Power Plants.

CENTRALIA, ILL.—The Council has had plans prepared for improving the water system. Estimated cost, $20,000.

*COUNCIL BLUFFS, IOWA.—Bids are asked by W. F. Sapp, City Clk., until 4 p. m., May 18, for the construction of a water-works plant, embracing a power plant complete, settling reservoirs, distribution system, and high service reservoir.

STILLWATER, MINN.—Bids are asked until noon, March 30, by the State Board of Control, St. Paul, Minn., for the erection of a water-tower at the new State prison at Stillwater. Clarence H. Johnston is Arch., 712 Manhattan Bldg., St. Paul.

*QUINDARO, KAN.—Bids are asked until April 10 by the Board of Public Works of Kansas City, Mo., for the construction of an intake pier for the Kansas City water-works here.

WESSINGTON SPRINGS, S. DAK.—The city has voted to issue $23,000 bonds for water-works.

KANSAS CITY, MO.—Bids are asked until March 20 by the Board of Public Works for furnishing and delivering f. o. b. cars, Kansas City, 300 6-in. hub and gate valves, test pressure 300 lbs. per sq. in., and 100 standard 5-in. double nozzle fire hydrants, with fire steamer connection. Everett Elliott is Secy. Bd.

HOUSTON, TEX.—The Board of City Commissioners on March 5 passed an ordinance appropriating $40,000 for the purchase of water mains and laying water main extensions. T. Bringhurst is City Secy.

OKLAHOMA CITY, OKLA.—Bids are asked until March 20 by the city for the improvement of the water-works system.

DENVER, COLO.—Plats and maps of the final survey for the tunnel canal and reservoir to be constructed by the Farmers' Reservoir & Irrigation Co. were filed with the Secretary of State today. Estimated cost, $2,195,000. W. C. Goldsborough is First Vice-Pres.

DENVER, COLO.—The Agricultural Ditch Co. has awarded the contract for the construction of the proposed tunnel to J. A. OSNER, 357 Broadway, Denver, at about $16,000. G. R. Baker, 718 Equitable Bldg., Denver, is Engr.

SPOKANE, WASH.—Bids are asked by the Board of Park Commissioners for constructing a drain. H. J. Gibbon is Secy. Bd.

J. C. Ralston, City Engr., has prepared preliminary plans for the construction of a standpipe to be erected at Manite Park. Estimated cost, $17,200.

OAKLAND, CAL.—F. C. Turner, City Engr., has submitted a plan for a pumping plant at Harrison and Turnbull Sts., to flush the sewer system. Noted March 12.

REDWOOD CITY, CAL.—The city has voted to issue $20,000 bonds for improving the water-works.

SAN FRANCISCO, CAL.—See under Light and Power Plants.

MORENCI, ARIZ.—The Morenci Water Co. is planning to construct at once covered steel tanks for an additional storage capacity of 500,000 gals.

AMERICAN FALLS, IDAHO. — The WHEELWRIGHT CONSTRUCTION CO., Ogden, Utah, was awarded the contract on March 2 by the American Falls Realty & Water-Works Co., Pocatello, for the construction of a water-works system at American Falls, at about $15,000. L. L. Evans is Gen. Mgr.

TORONTO, ONT.—The JOHN INGLIS CO. has been awarded the contract for supplying a 15,000,000-gal. pumping engine, at $147,530, and for supplying a 6,000,000-gal. engine, at $52,700. Noted March 12.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

REVERE (Boston post-office), MASS.—Bids are asked by the Sewer Commissioners until 8 p. m., March 23, for furnishing sewer pipe.

*WEST HARTFORD, CONN.—Bids are asked until 11 a. m., March 31, by the Board of Sewer Commissioners for the construction of the Park St. sewer system. The quantities approximate the following: 1,764 ft. of 15-in., 6,872 ft. of 12-in., 1,360 ft. of 10-in., 7,593 ft. of 8-in., 6,684 ft. of 6-in., 55 manholes. A. B. Alderson is Town Engr.

NEW YORK, N. Y.—Bids are asked by John F. Ahearn, Pres. Boro. of Manhattan, until 2 p. m., March 24, for constructing sewers and receiving basins and appurtenances in various streets.

FORT SLOCUM (New Rochelle post-office), N. Y.—Bids are asked until 10 a. m., April 15, by the Constructing Quartermaster, U. S. A., for the construction of a sewer system.

NEW YORK, N. Y.—Bids are asked until 11 a. m., March 30, by C. B. J. Snyder, Supt. School Bldgs., for furnishing and extending new sewers, drain lines, rain leaders, etc., and connections with private sewer in John St. at Public School No. 71, on the west side of John St., about 100 ft. north of Prospect Place, Metropolitan, Borough of Queens.

*BOGOTA, N. J.—Bids are asked by the Floral Heights Realty Co., at the office of Lemuel Lozier, Engr., Hackensack, N. J., until 2 p. m., March 25, for the construction of about 3,400 ft. of 8-in., 920 ft. 12-in. sewer pipe and 16 manholes. R. H. McCreedy is Pres. Co.

EAST McKEESPORT, PA.—The plans for the sewer system, prepared by John F. Romine, McKeesport, Pa., have been accepted by the Sewer Committee. E. G. King is Chn. Com.

MONACA, PA.—The Council has instructed James P. Leaf, City Engr., to complete surveys and to prepare estimates for the construction of sewers and storm sewers in the Fifth St., Ninth St., Indiana Ave., Pennsylvania Ave. and Washington Ave. extension. Bids will be asked as soon as the plans and estimates are completed.

*WASHINGTON, D. C.—Bids were received as follows on March 16 at the office of the Commissioners of the District of Columbia, Washington, for the construction of 800 ft. of sewer: (a) E. G. Gummel, 300 Rhode Island Ave., Washington, D. C.; (b) Warren F. Brenizer Co., Anacostia.; (c) R. J. Beall Construction Co., 1219 F St., N. W., Washington; (d) James A Coyle, Washington, D. C.; (e) Cranford Paving Co., Washington, D. C. Ordinary excavation, (a) 90 cts.; (b) $1.10; (c) $1.28; (d) $1.40; (e) $1.49. Red brick masonry, (a) $16; (b) $13.50; (c) $15; (d) $16; (e) $17. Vitrified brick masonry, (a) $22; (b) $21; (c) $22.50; (d) $24; (e) $21. Concrete masonry "B," (a) $7.36; (b) $7.90; (c) $9.25; (d) $8.50; (e) $7.90. Concrete masonry "C," (a) $7.81; (b) $7.45; (c) $8.75; (d) $7.75; (e) $7.50. 6-in. diameter pipe, (a) 20 cts.; (b) 30 cts.; (c) 40 cts.; (d) 25 cts.; (e) 20 cts. Totals, (a) $611; (b) $6,580; (c) $7,595; (d) $7,640; (e) $7,588.

The Commissioners of the District of Columbia have awarded the contract for the construction of a sewer at Ivy City, D. C., to WARREN F. BRENIZER CO., Washington, at $8,377.

AUGUSTA, GA.—P. McAULIFFE'S SONS were awarded the contract on March 10 by the Health Committee of the City Council for the construction of a sewer, at about $7,000.

TIFTON, GA.—Bids are asked by the city until March 30 for furnishing material and construction of sanitary sewer system, approximately six miles pipe sewers. W. W. Bryan is City Clk.

CANTON, MISS.—Bids are asked until April 9 by the city for the construction of a sewer system, comprising about seven miles of 6 to 18-in. pipe sewers. Walter G. Kirkpatrick, Jackson, Miss., is Engr.-in-Charge.

NASHVILLE, TENN. — STEWART & BRUCKNER have been awarded the contract by the city for furnishing iron drains for sewers at $1.45 per 100 lbs. W. W. Southgate is City Engr.

*LOUISVILLE, KY.—Plans and specifications are on file at the office of Engineering News, New York, for the construction of Section "C" of the Southern Outfall sewer. Bids are asked until April 2.

We are officially advised that the following bids were received on March 12 by the Commissioners of Sewerage for the construction of Section "A" of the Beargrass interceptor: E. O. Nave Bros. & Co., Louisville, $91,699; A. S. McCracken, Columbus, Ohio, $104,428; American Engineering & Construction Co., Chicago, Ill., $141,408; H. J. Stevens, Knoxville, Tenn., $150,087; Henry Bickel Co., Louisville, $168,346. Itemized bids are given this week under Contract Prices. J. B. F. Breed is City Engr.

CORLETT (Cleveland post-office), OHIO.—Bids are asked by W. H. Jantzen, Village Clk., until noon, March 25, for the construction of sewers in various streets.

LANCASTER, OHIO.—Bids are asked until noon, April 1, by the Board of Public Service for constructing certain sewers in Storm Water Sewer District No. 3. George H. Brown is Chn. Bd.

NORMAL CITY (Muncie post-office), IND.—Bids are asked until 8 p. m., March 23, by James G. Mendenhall, Town Clk., for constructing sewer, to be of 15-in., 18-in., 20-in., and 24-in. pipe and 2 ft. × 3 ft. brick.

PRINCETON, IND.—Plans and specifications have been prepared by F. E. Watts, C. E., for the construction of a sanitary sewer system. Estimated cost, $70,000. Noted March 5.

KNIGHTSTOWN, IND.—The Town Council will soon ask for bids for the construction of two miles of sanitary sewer.

*GRAND RAPIDS, MICH.—Bids are asked until 8 p. m., April 9, by the Board of Public Works for constructing a sewer in South Front St., from Allen St. to Grand River, including embankments, gates, pump connections, etc. Samuel A. Freshney is Gen. Mgr. Bd.

LE MARS, IOWA.—Bids are asked by the City Council until 8 p. m., April 7, for the construction of 1,572 ft. of 8-in. sewer, one flush tank and six manholes. D. N. Hoffmann is City Clk.

OTTUMWA, IOWA.—J. C. BLUNK, Ottumwa, has been awarded the contract by the city for the construction of the west end trunk sewer, at about $24,000.

REMSEN, IOWA.—Bids are asked until 7.30 p. m., March 27, by A. Paschke, Town Clk., for the construction of a sewage disposal plant, consisting of a sewage tank of about 15,700 gals. capacity, and two sand filter beds, each of about 6,000 sq. ft. area, and for the construction of sewers as follows: About 2,775 ft. of 12-in. and 1,555 ft. of 8-in., with sub-drains and appurtenances. A. Marston and F. M. Okey are Engrs.-in-Charge, Ames, Iowa.

LAWRENCE, KAN.—Bids are asked until 5 p. m., April 6, by the city, for constructing sewers in various streets.

WICHITA, KAN.—The contract for constructing sanitary sewer No. 8 has been awarded by the city to the MUNICIPAL CONSTRUCTION CO., Kansas City, Mo., at $75,401. R. N. Dorr is City Clk.

KANSAS CITY, KAN.—R. L. McAlpine, City Engr., is preparing plans for four vitrified pipe district sewers. Estimated cost, $10,000. Bids will soon be asked. D. E. Cornell, Mayor.

GRAND ISLAND, NEB.—Bids are asked until 5 p. m., April 1, by the City Council for laying about 3,748 ft. of 15-in. and 688 ft. of 8-in. vitrified or concrete sewer pipe with six manholes, 19 lampholes, and one flush tank. H. E. Clifford is City Clk.

WEBB CITY, MO.—WILLIAM GLENN, Webb City, has been awarded the contract for constructing a sewer in District No. 17. W. E. Smith is City Engr.

HOUSTON, TEX.—THE INTERNATIONAL ENGINEERING CO. has been awarded the contract for the construction of a sanitary sewer through and in the Butte addition to connect at one end with the city pumping station and at the other end with the sewer in Kenilworth Grove.

ROSWELL, N. MEX.—We are officially advised that Burns & McDonnell, Consulting Engrs., Scarritt Bldg., Kansas City, Mo., are preparing plans and specifications for the construction of sewers here. Estimated cost, $35,000.

CENTRALIA, WASH.—The contract for constructing laterals to the new sewer has been awarded by the city to DAVIS, MILLS & CO., at $24,461.

TACOMA, WASH. — GEORGE MILTON SAVAGE has been awarded the contract for the construction of the Hosmer St. sewer at $16,264. Frank L. Davis is City Engr.

EVERETT, WASH.—A. THORSVIG was awarded the contract on March 4 by the city for the construction of a sewer in Rucker Ave.

OAKLAND, CAL.—Bids are asked until 11 a. m., April 1, by Board of Public Works for construction of storm sewer in Grove St. and Jones St., from 26th St. to Telegraph Ave. Walter B. Faucett is Secy. Bd.

THE STANLEY CONSTRUCTION CO. has been awarded the contract by the Board of Public Works to construct a storm sewer in Grand Ave. from Cottage St. to the northern boundary of the city.

PASADENA, CAL.—See under Light and Power Plants.

BOISE, IDAHO.—The contract for constructing the pipe sewer in lateral sewer district No. 107 (bids opened Feb. 20) has been awarded to THOMAS FINNEGAN, 521 North Sixth St., Boise, at $8,213.

GARBAGE DISPOSAL.

ROCHESTER, N. Y.—The lowest bid for street sprinkling has been submitted by Bantel & Hartung, at $51,272.

WILKES-BARRE, PA.—The contract for cleaning the streets of the city was awarded on March 10 by the Councils to HARRY A. CASSIDY, at about $14,000.

LOUISVILLE, KY.—Bids are asked by the Board of Public Works until March 24 for furnishing and erecting 37 6-in. hydrants for street sprinkling in various parts of the city. Estimated cost, $3,700. J. P. Claybrook is Ch. Engr., Dept. Pub. Wks.

INDIANAPOLIS, IND.—Bids are asked by the Commissioners of Marion County until March 25 for furnishing and delivering one modern steam road roller. Albert Sahm is County Audr.

ST. LOUIS, MO.—The STANDARD REDUCTION & CHEMICAL CO. has been awarded the contract by the Board of Public Works for the reduction of garbage for a period of ten years, at 27 cts. per ton. Noted March 12 as lowest bidder.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

HARTFORD, CONN.—The following plans have been received by the State Highway Commissioner for the improvement of roads: From Samuel H. MacKenzie, two sections on the Meriden-Southington road in the towns of Meriden and Southington; from Henry Robinson Buck, one section on Elm St., Rocky Hill, and an 8-mile section running from Maple Ave., in the town of Hartford to Berlin St. in Berlin; from W. A. Williston, one section on the Litchfield road in the town of Torrington.

HARTFORD, CONN. — The Board of Finance has recommended the appropriation of $345,505 for street improvements.

*CORTLAND N. Y.—Bids were received on Feb. 25 by the Board of Public Works for paving North Main St. and Homer Ave. D. B. Coleman, Engr. The bidders and bids were as follows: (A) S. P. Hull, Cortland; (B) Samuel Bonn, Syracuse, N. Y.; (C) C. T. Hookway, Syracuse, N. Y.; (D) C. O. McComb, Syracuse, N. Y.; (E) Hassam Paving Co., Worcester, Mass.; (F) Dollard & Holler, Albany, N. Y.; (G) C. R. Lewis, Ilion, N. Y.; (H) Guy B. Dickison, Syracuse, N. Y.; (I) Barber Asphalt Paving Co., Land Title Bldg., Philadelphia, Pa.; (J) Warner Quinlan Asphalt Co., Syracuse, N. Y.:

Paving Homer Ave. with vitrified brick or block (repressed), 5-year guarantee; stone curb. For vitrified brick pavement and stone curb, (A) $22,303; (B) $26,104; (C) $25,982; (D) $25,086; (E) $22,579; (F) $24,719; (G) $23,310; (H) $25,687. Same, with cement curb and gutter, (A) $19,506; (B) $23,527; (C) $23,192; (D) $23,168; (E) $19,738; (F) $21,988; (G) $21,449; (H) $23,380. For cement curb only, (A) $1,850; (B) $2,368; (C) $2,220; (D) $2,479; (E) $1,924; (F) $2,479; (G) $2,960; (H) $2,553. For concrete in railroad strip and vitrified brick in 2-ft. strip, (A) $3,775; (B) $4,844; (C) $4,860; (D) $10,830; (E) $4,057; (F) $5,166; (G) $4,939; (H) $5,061. Stone curb, concrete in railroad strip, (A) $21,386; (B) $25,520; (C) $25,322; (D) $30,465; (E) $21,921; (F) $24,082; (G) $23,350; (H) $25,113. Cement curb, concrete in railroad strip, (A) $18,589; (B) $22,943; (C) $22,532; (D) $28,548; (E) $19,080; (F) $22,071; (G) $21,489; (H) $22,806.

Paving Homer Ave. with sheet asphalt, 10-year guarantee, stone curb, contract awarded to bidder (I): (I) $23,842; (J) $23,624; total concrete and brick in railroad strip, (I) $4,426; (J) $4,852; cement curb and gutter only, (I) $1,850; (J) $2,590; total cement curb and gutter, (I) $20,789; (J) $21,494; total cement curb concrete in railroad strip, (I) $20,201; (J) $21,144; total stone curb concrete in railroad strip, (I) $23,254; (J) $23,274.

Paving North Main St., with vitrified brick or block (repressed), 5-year guarantee, stone curb, (A) $19,278; (B) $22,443; (C) $22,445; (E) $19,569; (F) $21,285; (G) $20,235; (H) $22,186; same with cement curb and gutter, (A) $16,741; (B) $20,090; (C) $19,902; (E) $16,992; (F) $18,800; (G) $18,523; (H) $20,070; for cement curb only, (A) $1,637; (B) $2,096; (C) $1,965; (E) $1,703; (F) $2,194; (G) $2,620; (H) $2,260; for concrete in rail-

road strip and vitrified brick in 2-ft. strip, (A) $3,325; (B) $4,251; (C) $4,260; (E) $3,547; (F) $4,521; (G) $4,327; (H) $4,418; for stone curb concrete in railroad strip, (A) $18,523; (B) $21,974; (C) $21,905; (E) $19,-017; (F) $21,386; (G) $20,302; (H) $21,704; cement curb concrete in railroad strip, (A) $15,986; (B) $19,621; (C) $19,362; (E) $16,-440; (F) $18,901; (G) $18,590; (H) $19,588. For paving North Main St., with sheet asphalt, 10-year guarantee, sandstone curb; contract awarded to bidder (I), (I) $20,538; (J) $20,394; total concrete and brick in railroad strip, (I) $3,866; (J) $4,206; cement curb and gutter only, (I) $1,637; (J) $2,292; total cement curb and gutter, (I) $17,766; (J) $18,440; total cement curb and gutter concrete in railroad strip, (I) $17,272; (J) $18,146; total stone curb concrete in railroad strip, (I) $20,044; (J) $20,100. D. B. Coleman is Engr.

NEW YORK, N. Y.—Bids are asked until 3 p. m., April 2, by the Park Board for furnishing and delivering grass sods in parks and parkways Boro. of Brooklyn.

NEW YORK, N. Y.—Bids are asked until 3 p. m., March 26, by the Park Board for furnishing and delivering 500 cu. yds. broken stone of trap rock and 1,000 cu. yds. screenings of trap rock for parks, Borough of the Bronx. Henry Smith is Pres. Bd.

RIVERHEAD, L. I., N. Y.—The contract for the construction of the stone road from Riverhead to the Quogue depot has been awarded to the ROBERTSON & GEREHART CEMENT CO., 18th Ave., Brooklyn, N. Y., at $66,097.

ASBURY PARK, N. J.—Bids are asked until noon, March 30, by the Common Council for laying about 14,500 sq. yds. of vitrified paving blocks or creosoted wood paving blocks on Cookman Ave., from Main St. to Grand Ave. and Bond St., from Cookman Ave. to Summerfield Ave. William C. Burroughs is City Clk.

FARMINGDALE, N. J.—We are officially advised that RICHARD HAFEMAN, Farmingdale, was awarded the contract on March 11 by the Board of Freeholders for the construction of the Farmingdale-Hamilton gravel road.

THOMAS G. ORR, Freehold, N. J., secured the contract for the construction of the Manalapan stone road.

BLOOMFIELD, N. J.—Bids are asked until April 7 by the Town Council for furnishing about 2,000 tons of broken stone, delivered at such points in the town as may be designated by the Road Committee. Wm. L. Johnson is Town Clk.

RAMSEY, N. J.—Bids are asked until April 4 by the Township Committee of Hohokus Township, Ramsey, for constructing about 2.654 miles of stone roads. Chas. F. Schneider is Township Clk.; R. Wanmaker is Engr., Mahwah, N. J.

SALEM, N. J.—Bids are asked until 3 p. m., April 4, by the Board of Chosen Freeholders, Court-House, Salem, for the construction of the Penn's Grove and Dancer's Mill road, extending from the corner of Main and Oak Sts., Borough of Penn's Grove, to the bridge over Game Creek, a distance of a 3 2-10 miles. J. F. Ayres is Dir. Bd.

SHARON, PA.—WILLIAM McINTYRE & SONS have been awarded the contracts for paving South Main, South Irvine and South Dock Sts. with vitrified brick, at about $40,-000.

SCRANTON, PA.—The Council has passed ordinances providing for paving Green Ridge St. and Quincy Ave.

SOMERSET, PA.—Bids are asked until April 3 by Joseph W. Hunter, State Highway Comr., Harrisburg, Pa., for reconstruction of National pike from borough line of Somerset.

HARRISBURG, PA.—Bids are asked until April 3, by Joseph W. Hunter, State Highway Comr., for constructing 13,350 ft. of State road in Paint Township, Somerset County.

HAZLETON, PA.—The following improvement ordinances have been passed: paving Church St., from Broad to Diamond Sts., with brick, $18,000; paving North Wyoming St., from Maple to Diamond Sts., with brick, $17,000; paving South Wyoming St., from Beach to Walnut Sts., $7,000.

HARRISBURG, PA.—Bids are asked until April 2 by the State Highway Department for the construction of 13,242 ft. of road, extending from end of iron bridge over Chartiers Creek in a northeastwardly direction to iron bridge over Little Chartiers Creek, in North Strabane Township, County of Washington. Joseph W. Hunter is State Highway Comr.

WILMINGTON, DEL.—Bids are asked until noon, March 24, by Francis A. Price, State Highway Comr. of New Castle County, Wilmington, for the construction of various roads.

BALTIMORE, MD.—The Commissioners for Opening Streets have had plans completed for paving and grading North Ave. from Payson to 12th Sts. Estimated cost, about $135,000. A. E. Christhilf is Ch. Engr. Comrs.

WASHINGTON, D. C.—The House of Representatives has passed House Bill No. 11,-776, providing for opening Jefferson and Fifth Sts Northwest; House Bill 11,767, providing for the extension of Kenyon St. from T St. to Mount Pleasant St., and for the extension of 17th St. from Kenyon St. to Irving St.; House Bill No. 4,060, providing for the extension of Oak St. Northwest.

VICKSBURG, MISS.—H. F. GARLISH, Vicksburg, was awarded the contract on March 12 for repairing the roadway leading to National Cemetery, Vicksburg, at $9,750.

LAKE CHARLES, LA.—The city has awarded the contract for constructing three miles of cement sidewalks on Hodges and Ryan Sts. to the WEST CONSTRUCTION CO., Nashville, Tenn.

OPELOUSAS, LA.—Bids are asked until March 31 by the city for 2,500 ft. of cement sidewalks.

PORT HUDSON, LA.—We are officially advised that L. F. HART, Baton Rouge, La., was awarded the contract on March 10, at $9,350, for repairing the roadway, bridge and culvert leading to the National Cemetery at Port Hudson.

FAYETTEVILLE, TENN.—RAMSEY & DAVIS, Portland, Ind., have been awarded the contract for laying five miles of concrete pavement here.

LOUISVILLE, KY.—Bids are asked by the Board of Public Works until March 25 for grading, curbing and paving six blocks of streets with granite block pavement, about 10,000 sq. yds. Estimated cost, $26,000. J. P. Claybrook is Ch. Engr. Dept. Pub. Wks.

HENRY BICKEL CO., 1052 Garden St., Louisville, has been awarded contracts by Board of Public Works for grading, curbing and paving two streets with vitrified block at $1.72 per sq. yd.

L. R. FIGG, 243 Sixth St., Louisville, has been awarded contracts for grading, curbing and paving three streets with vitrified block at $1.61 per sq. yd.

C. W. McFARLAND & CO. have been awarded contracts for grading, curbing and paving nine alleys with vitrified block at $1.48 to $1.56 per sq. yd.

LIMA, OHIO.—THE ANDREWS ASPHALT CO., Hamilton, Ohio, has been awarded the contract for paving on North and South Elizabeth Sts., at $12,000.

CAMBRIDGE, OHIO.—PORTER E. GIBSON, Cambridge, has been awarded the contract by the city for brick paving on North Eighth St., Long St. and Madison Ave., at $15,700. O. M. Hoge is City Engr.

DAYTON, OHIO.—The City Engineer has estimated the cost of proposed street improvements as follows:

Monument Ave., from Keowee St. to canal bridge: plain macadam, $29,173; creosoted wood block, $57,013; Wayne Ave., from Anderson to Epworth Aves.: plain macadam, $29,814; creosoted wood block, $52,956; Meigs St., between Second and Monument Aves.: macadam cement, $5,761; wood block, $10,321.

CLEVELAND, OHIO.—Bids are asked by the Board of Public Service until noon, March 26, for grading, draining, curbing and flagging, paving with paving brick and Medina dressed block stone and improving Eagle Ave., S. E., from West Third St. to Canal Road, S. E., and Jefferson Ave., S. E. and S. W., from West Third St. to Cuyahoga River and from Cuyahoga River to Broadway, S. E. A. R. Callow is Secy. Bd.

YOUNGSTOWN, OHIO.—Bids are asked until noon, March 23, by the Board Public Service for paving Marshall St., from West Ave. to Glenwood Ave. W. H. McMillin is Clk. Bd.

PORTSMOUTH, OHIO.—KELLEY BROS. were awarded the contract on Feb. 28 by the Board Public Service for street paving, at $4,186.

RICHWOOD, OHIO.—Bids are asked by Ray L. Jordan, Village Clk., until noon, April 4, for improving Franklin St.

MOROCCO, IND.—The Commissioners of Newton County will soon ask for bids for the construction of five miles of stone road in McClelland and Colfax Townships. Estimated cost, $2,500 per mile.

COLUMBIA CITY, IND.—The MOELLERING CONSTRUCTION CO., Ft. Wayne, Ind., has been awarded the contract for paving Main and Market Sts., at $58,798.

MADISON, IND.—Bids are asked by the Board of Public Works until April 2, 1908, for the construction of cement walks, curbs and the grading of Church, East, Walnut, Jefferson, Mulberry and West Sts.

LAWRENCEBURG, IND.—Bids are asked by the Commissioners of Deaborn County until noon, April 6, for the grading, draining and paving roadbed of 12,084.8 ft. of road in Lawrenceburg Township. William S. Fagaly is County Audr.

HARTFORD CITY, IND.—Bids are asked by the Commissioners of Blackford County until noon, April 6, for furnishing all the material and constructing the Dowell gravel and macadamized road in Licking Township. Length of road, 11,370 ft. L. W. Dougherty is County Audr.

KNOX, IND.—Bids are asked by the Commissioners of Stark County until noon, April 6, for the construction of the following gravel roads in Wayne Township: Road No. 8, 5,232 ft. in length; road No. 9, 5,300 ft.; road No. 10, 18,543 ft.; road No. 11, 11,120 ft.; road No. 12, 10,400 ft.; road No. 13, 2,612 ft.; road No. 14, 1,950 ft.; road No. 15, 2,480 ft.; road No. 16, 652 ft.; road No. 17, 320 ft.; road No. 18, 2,400 ft.; road No. 19, 1,300 ft. Lee M. Ransbottom is County Audr.

MARTINSVILLE, IND.—Bids are asked by the Commissioners of Morgan County until 2 p. m., April 7, for the construction of three gravel roads, the Macy road in Brown Township, 11,048 ft. long; the Crawford road in Jackson Township, 2,998 ft.; and the Deer road in Jackson Township, 2,137 ft. B. E. Thornburg is County Audr.

VINCENNES, IND.—The contract for laying granolithic sidewalks for the U. S. public building here has been awarded to PENNINGTON & NORTON.

DANVILLE, IND.—Bids are asked by the Board of Commissioners of Hendricks County until 10 a. m., March 23, for grading and macadamizing certain highways, 14,598 ft. E. M. Murphy is Chn. Bd.

INDIANAPOLIS, IND.—Bids are asked until 8 p. m., March 28, by Frank H. Goheen, Town Clk., Woodruff, for grading and paving with concrete. Means & Tripp are Engrs.-in-Charge, State Life Bldg., Indianapolis, Ind.

COLUMBUS, IND.—Bids are asked until 2 p. m., April 6, by the County Commissioners for the construction of three miles of gravel roads in Nineveh Township.

VINCENNES, IND.—EDWARD VOLLMER was awarded the contract on March 5 by the County Commissioners for the construction of 13,900 ft. gravel road in Johnson Township, at $6,655.

APPLETON, WIS.—The contract for laying eight blocks of creosoted block pavement has been awarded to FIELDING & SHEPLEY, St. Paul, Minn., at about $45,-000.

MINNEAPOLIS, MINN.—We are officially advised that contracts were awarded on March 13 by the City Council for paving materials, as follows: PURINGTON PAVING BRICK CO., Galesburg, Ill., 40,000 sq. yds. paving blocks at 96 8/10 cts. per sq. yd., f. o. b. cars, Minneapolis. KETTLE RIVER QUARRIES CO., Minneapolis, Minn., 40,000 sq. yds. sandstone paving blocks at $1.55 per sq. yd., f. o. b. cars, Minneapolis. ROBERT GRAHAM, St. Cloud, Minn., 2,000 lin. ft. of 5 × 20 granite curb at 57 cts. for straight and 67 cts. for radius curb, f. o. b. cars. Minneapolis. WILSON GRANITE CO., Chicago, Ill., 2,000 cu. yds. crushed granite, at $2.07 per cu. yd., f. o. b. cars, Minneapolis.

Bids are asked until March 27 by the city for furnishing 50,000 sq. yds. of creosoted wood blocks. Andrew Rinker is City Engr.

MINNEAPOLIS, MINN.—Bids are asked until 11 a. m., March 30, by the Board County Commissioners for grading and macadamizing various roads.

WINONA, MINN.—The City Council has ordered plans and specifications prepared for paving alleys in blocks Nos. 15, 17 and 21, each 20 × 300 ft. Paul A. Jasmer is City Recdr.

LEAVENWORTH, KAN.—The contract for paving Kiowa St. from Fifth St. to Broadway has been awarded to O. C. CHAPIN at $1.44 per sq. yd. for paving, 37 cts. per cu. yd. for grading, $30 per 1,000 for white oak headers, $1 for expansion joints.

CORSICA, S. DAK.—Bids are asked until 2 p. m., March 25, by George E. Culver, Corsica, for grading in Grand View, Walnut Grove, Valley and Garfield Townships.

DENVER, COLO.—The COMMONWEALTH CONSTRUCTION CO. has been awarded the contract to pave the alleys on both sides of Colfax St., between Gilpin and Grant Sts., at $11,742.

DENVER, COLO.—THE DENVER & PUEBLO CONSTRUCTION CO., Denver, has been awarded the contract for paving (a) Blake St., at $54,456; (b) Wazee St., at $6,260. List of bidders noted March 5.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported upon the following local improvements, giving the estimated cost as follows:

18th Ave. Northwest and other streets, concrete sidewalks	$17,900
West 73d St. and other streets grading	8,800
Madison St., repaving with sandstone blocks	3,000
32d Ave. and other streets, grading, etc.	22,700
Thackery Place and other streets, concrete sidewalks	10,000

The following contracts have been awarded by the city:

24th Ave. and other streets, grading and constructing concrete sidewalks, JOSIAH JONES & SON, $9,577.

19th Ave. Northwest, grading, W. F. MANNEY & CO., $4,883.

20th Ave. Northeast and other streets, grading, MACQUAID & MOORE, $4,023.

Grand Boulevard, grading, MOUGIN & PRICE, $1,608.

East Mercer St., concrete sidewalks, PAUL STEENSTRUP, $5,258.

Florence Court and other streets, T. RYAN, $21,811.

36th Ave. North and other streets, grading, RICH-HARRISON CONSTRUCTION CO., $6,133.

SEATTLE, WASH.—We are officially advised that the following bids were received on March 7 by the city for paving Yesler Way with asphalt and sandstone: Sparger Concrete Co., Colman Block, Seattle, $108,-761; P. J. McHugh, Seattle, $95,333; H. F. Jahn & Co., Empire Block, Seattle, $109,701; F. McLellan & Co., Burke Block, Seattle, $103,703. Itemized bids are given under Contract Prices this week. R. H. Thomson is City Engr.

PORTLAND, ORE.—The city has awarded the following contracts for street improvements: Clackamas St., STAR SAND CO., at $4,251; Albina St., same firm, $11,811; Denver Ave., MILLER & BAUER, at $3,469. Douglas W. Taylor is City Engr.

SANTA MONICA, CAL.—J. D. Kneen has submitted the lowest bid, at $11,294, for the construction of a cement walk from the pier to Hollister Ave. Thomas H. James is City Engr.

OAKLAND, CAL.—Contracts for macadamizing Beach St. from A to B Sts., West St. from 47th St. to a point 270 ft. northerly, have been awarded by the city to the BLAKE & BILGER CO.

The H. HUTCHINSON CO. has secured the contract for macadamizing East 26th St. from 19th to 21st Aves. F. C. Turner is City Engr.

HAMILTON, ONT.—The Civic Public Works Department has decided upon spending $250,000 this year on permanent road building. W. R. Leckie is Clk.

OTTAWA, ONT.—Bids are asked until noon, March 24, by the Chairman, Board of Control, for brick, broken stone, curbing, cement and sand. Newton J. Ker is City Engr.

EDMONTON, ALTA.—The ratepayers have voted in favor of raising $130,000 in addition to the $121,000 already voted for the construction and paving of streets.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

IPSWICH, MASS.—Operations will begin on an enlargement of the plant of the Ipswich Mills, Ipswich, in the spring. A building which is to furnish 80,000 sq. ft. of floor space is to be erected on the site of the old stone mill and the box shop. During the building of this addition the present plant will be run as usual. New machinery will be added.

CENTRAL VILLAGE, CONN.—Construction work on the new addition to the Central Worsted Co.'s plant at Central Village will begin as soon as the weather permits. The company has increased its capital stock from $50,000 to $75,000. Men's wear worsted and woolen fabrics are the product of the mill.

BRISTOL, CONN.—The G. G. Garrigus Machine Co., of this city, which has been organized with a capital stock of $50,000, has acquired a site on Riverside Ave. The main building will be a brick structure, 36 × 70 ft, three stories high. The company will manufacture special machinery.

NEW YORK, N. Y.—We are officially advised that contract has been let to THOMAS DONLON CO., Butler St., Brooklyn, for alterations and extension to 4-story factory building for the Rathjens American Composition Co., 69 Van Dyke St., Brooklyn. Cost, $15,000. A. S. Hedman, 367 Fulton St., Brooklyn, is Arch.

We are officially advised that John B. Mooney, Arch., 1511 Third Ave., New York, will receive estimates at once for building two additional stories to the wagon factory of William Koenig, 20 Lawrence St., New York. The factory has four stories at present. Estimated cost, $10,000.

WEST ALBANY, N. Y.—The New York Central & Hudson River R. R. Co. contemplates further extensive improvements to its plant at the West Albany yard, although no definite plans have been determined upon as yet. Extensive improvements are under way at West Albany, and these were fully noted in Engineering News of Jan. 30. The improvements mentioned are included in the $1,000,000 estimate. The plans will be under the charge of George W. Kittredge, Ch. Engr. of the company, at New York.

LE ROY, N. Y.—The stockholders of the Le Roy Cotton Mills have voted to increase the capital stock of the company from $450,-000 to $750,000, of which $500,000 will be preferred stock and $250,000 in common stock. The company is to enlarge its plant here, adding a building 300 × 400 ft., in which will be installed a weaving department. At present the mills only manufacture yarn, but it is proposed to use the products of the present mill by weaving it into cloth.

PATERSON, N. J.—Preliminary work has been started on a silk mill to be erected for the Aronsohn Bros. Silk Co., Cliff St. The mill is to be of brick, 60 ft. wide and 200 ft. long. It will be four stories high. The interior will be of steel girders, and beams and cement floors. The boiler-room and engine-house will be a separate 1-story building. The brick chimney will be 110 ft. above the ground. The estimated cost of the building, completed, is $43,750. Each floor will be provided with a number of exterior fire escapes.

PHILADELPHIA, PA.—J. J. Felin & Co., pork packers, will build an addition to the plant at 4142 to 4156 Germantown Ave. Plans for the new building, which will be two and three stories in height, 75 × 250 ft., have been prepared by P. A. Klee, Arch. Estimates on the cost of building will be taken by the architect, who will superintend the work. The estimated cost of the building is $180,000.

MIDDLETOWN, PA.—Citizens of Middletown, Pa., are considering plans for the formation of a company to erect and operate a pipe and pipe-bending plant near Middletown. Thomas Holland, of Royalton, Pa., has offered to give two acres of ground for the plant along the Pennsylvania R. R.

MONESSEN, PA.—We are officially informed that the JAMES McNEIL & BRO. CO., 29th St., Pittsburg, Pa., has been awarded contract by the Pittsburg Steel Co., Frick Bldg., Pittsburg, involving about 800 to 900 tons of material. The work consists of constructing several flues for 51 gas producers, the flues varying in diameter from five to eight feet, including all branches, supports and castings; also eight self-supporting steel stacks, 12-ft. bottom diameter and 175 ft. high. for open hearth plant, and five self-supporting steel stacks, 7-ft. bottom diameter and 100 ft. high, for soaking pit furnaces. This work is to be erected at the new plant of the Pittsburg Steel Co., at Monessen. The erection will be started at once.

PITTSBURG, PA.—We are officially advised that contract has been awarded to the JAMES McNEIL & BRO. CO., 29th St., by the Liquid Carbonic Co., Winebiddle Ave. and Pennsylvania R. R., Pittsburg, for constructing several cooling towers and tanks, the largest of which are 10 ft. in diameter and 100 ft. high.

BALTIMORE, MD.—Callis & Callis, Archs., have prepared plans and are receiving estimates for a 5-story addition to the plant of Lipps-Murbach Co., Hollins St. and Calverton Road, chocolate manufacturers. Cost, $25,-000.

MOUNDSVILLE, W. VA.—Franklin A. Pierce, of Wheeling, W. Va., and associates have formed and incorporated the Pierce Safety Appliance Co., which will have the general offices at 1321 Market St., Wheeling, and which will erect a plant at a cost of about $300,000 at Moundsville. The company is capitalized at $500,000, nearly all of which is paid in, the other leading stockholders and incorporators being Earl A. Lenkard, Wheeling; John E. Oswald and John T. Waters, Bellaire, Ohio; and William McSwain, Moundsville.

WHEELING, W. VA.—The Wheeling Bakery Co. will rebuild the bakery recently burned. The proposed building will have four stories, 80 × 100 ft., basement, and will be fireproof. Cost of building, $50,000; cost of machinery, $20,000.

CHOCOWINITY, N. C.—The Norfolk & Southern Ry. Co. is having plans prepared for repair shops to be built here, which will cost $300,000. Thomas W. Cochran is Asst. Engr., Raleigh, N. C. F. L. Lake is Superv. Bridges and Bldgs., Berkley, Va.

CHARLESTON, W. VA.—The Tanners' & Dyers' Extract Co., of this city, will build, as an addition to the plant, a paper pulp plant which will cost about $150,000, and which will have a capacity of from 35 to 40 tons a day. W. P. Stein is Gen. Mgr. of the company, and will have charge of the erection of the plant.

WOODRUFF, S. C.—Nesbitt & Gray, owners of the Woodruff Roller Mills, lately burned, are having plans prepared to rebuild. It is contemplated to build the new flour mill on a different site.

DARLINGTON, S. C.—The management of the Cheraw Cotton Mills expects to make arrangements during the early summer for the erection of the company's proposed plant, which is to have 10,000 spindles and 300 looms, for manufacturing cotton cloth. No contracts have been made as yet, except to engage Joseph E. Sirrene, of Greenville, S. C., as Engr.-Arch. The company is capitalized at $150,000, and will use electricity for power. A. G. Kollock, of Darlington, S. C., is Treas. and Mgr.

LAGRANGE, GA.—Fuller E. Callaway and associates, of Lagrange, Ga., expect to complete arrangements during the early summer for the organization of the Manchester Cotton mills and the erection of the proposed plant. Engineers will be engaged soon to prepare plans for the plant. The company is to be capitalized at $500,000.

ATLANTA, GA.—James P. Field, 24 South Broad St., Atlanta, proposes to establish a pulp and paper mill, it is stated.

ALBANY, GA.—Smith D. Pickett and his associates at Albany, Ga., will announce perfected plans soon for their proposed mill company. It is planned to build a mill to contain 10,000 spindles, which would mean the investment of probably $200,000. The mill is to be driven by electric power. J. E. Sirrine, of Greenville, S. C., will prepare plans for the plant. Noted on Feb. 20.

JESUP, GA.—W. H. Whaley, Pres. of the Merchants' & Farmers' Bank, Jesup, Ga., and his associates in the Goose Creek Ry. & Power Mfg. Co., have decided to proceed at once with the erection of the proposed cotton factory, it is stated. D. G. Zeigler, of Columbia, S. C., has been instructed to complete the plans as soon as possible. Construction is expected to begin by April 1. In connection with the mill there will be a 3,000-HP. electric plant, to furnish electricity for driving the mill and for lighting, etc. The company is capitalized at $250,000. See Light and Power Plants and Electric Railways, Feb. 27.

ANNISTON, ALA.—The Woodstock Iron & Steel Corporation intends to rebuild its furnace, at a cost of about $200,000.

MEMPHIS, TENN.—The Cudahy Packing Co., 94 Clinton St., Memphis, will remodel its building, 42 × 306 ft., and will install cold storage equipment. Cost, $17,000.

LOUISVILLE, KY.—A permit has been granted to the Bourbon Stock Yards Co. to erect buildings on the site of the plant recently destroyed by fire. The new buildings are to be of reinforced concrete, with an area of 420 × 900 ft., and will cost about $140,000.

A permit has been issued to Callahan & Sons to erect a steel, concrete and brick grain elevator at 13th and Lexington Sts., to cost $20,000.

STRUTHERS, OHIO.—The Youngstown Sheet & Tube Co., of Youngstown, Ohio, has purchased the plant of the Morgan Spring Co., at Struthers, and will greatly enlarge the property. The purchase does not affect the property of the Morgan Spring Co., at Worcester, Mass., which will remain under the former ownership. The Struthers plant consists of an acreage adjoining the Youngstown Company's plant, and also contains a continuous rod mill, wire-drawing plant and wire nail mill. The new owner will at once double-strand the rod mill and double the capacity of the wire and nail plants, which will give it an output of 8,000 to 10,000 tons of wire products per month. J. A. Campbell, Youngstown, is Pres. and Gen. Mgr.

WARREN, OHIO.—The Radio Furnace Co., composed of Youngstown men, and recently capitalized at $10,000, is making arrangements to locate here. It has purchased the property formerly owned by the Warren Pottery Co. on the West Side, part of which it will sell in plats, holding the remainder, about nine acres, for its own use. Work on the buildings will be begun soon.

COSHOCTON, OHIO.—James B. Clow & Sons, Franklin and Harrison Sts., Chicago, Ill., have decided to erect a plant here for the manufacture of cast and wrought-iron pipe, soil pipe and fittings for the same. Work on the plant will be started as soon as possible, the site having been secured. The company, upon the completion of the plant will concentrate several of its mills and departments here.

CLEVELAND, OHIO.—Plans have been completed by the Forest City Engineering Co., Cleveland, for a 1 and 2-story shop and foundry building for the American Brass. Mfg. Co. The building will cost about $10,000.

BELLEFONTAINE, OHIO.—Allie J. Miller & Co., of this city, manufacturers of buggy and carriage bodies, will enlarge their plant. A brick building, 150 ft. long by 50 ft. wide, and three stories high, will be erected. The addition will be fireproof and will be used as a wareroom to store bodies that are finished and ready for shipment. It is stated that A. R. FILSON has contract for the work.

CINCINNATI, OHIO.—The John Grossius Furnace Co., 409 East Eighth St., Cincinnati, will erect a $15,000 factory building on Broadway, near Court St. The company is at present located in buildings on Eighth St., east of Broadway, which, with other buildings, will be razed to permit the construction of the Gilbert Ave. viaduct. Plans for the improvement have been prepared by C. M. Foster, Arch., Johnston Bldg., Cincinnati, who is taking figures on the work. The building will have three stories, with basement, and will be 40 × 80 ft.

ARCADIA, IND.—The Arcadia Glass Works Co. contemplates erecting an addition to the present plant.

MURPHYSBORO, ILL.—George Jones, Secy. and Treas. of the Evans Howard Brick Co., St. Louis, Dr. Charles Starkel, Pres., and C. W. Alsup, Supt. of the Standard Brick Co., of Belleville, propose to erect a $200,000 paving brick plant.

JOLIET, ILL.—It is stated that the Lafean Paper Co., College Ave., York, Pa., will erect a paper mill here, expending about $150,000.

DECATUR, ILL.—The capital stock of the Leader Iron Works, Decatur, has been increased from $75,000 to $100,000. Plans are in contemplation for the extension of its plant.

CHICAGO, ILL.—Contracts have been let by Treat & Ahlschuler, Archs., 277 Dearborn St., to H. EILENBERGER & CO., 153 La Salle St., for superstructure of buildings for a manufacturing plant, at Lexington St. and Washtenaw Ave., for the Raymond Lead Co. N. T. Morgan, Secy. and Treas., 59 West Lake St. There will be three buildings, of brick, mill and steel construction. Cost, $200,000.

It is reported that the J. Rosenbaum Grain Co., Postal Telegraph Bldg., intends erecting a grain elevator at 106th St. and Calumet River. The elevator will have a capacity of 2,000,000 bushels and will cost about $1,000,000.

APPLETON, WIS.—Plans are being prepared by J. J. Flanders, 80 Dearborn St., Chicago, Ill., for a factory building, to be erected at Appleton for the National Condensed Milk Co., St. Charles, Ill. Cost, $20,000.

MINNEAPOLIS, MINN.—The Northwestern Consolidated Milling Co., A. C. Loring, Pres., Guaranty Loan Bldg., Minneapolis, contemplates the erection of an elevator of 1,000,000 bushels capacity. Cost, $300,000.

STILLWATER, MINN.—Bids are asked by the State Board of Control, P. M. Ringdahl, Chn., St. Paul, Minn., until March 30, for the general construction of a 2-story factory building, cold storage warehouse, water tower and boiler-house. Total cost, $200,000. C. H. Johnston, Manhattan Bldg., St. Paul, Minn., is Arch.

WINFIELD, KAN.—The Board of Control of State Charitable Institutions, Topeka, has let general contract to PAULEY, HOYLAND & CO., Winfield, at $7,008, for the erection of a laundry building at the School for Feeble Minded Youth, Winfield. F. W. Knapp is Secy.

DEADWOOD, S. DAK.—The Deadwood Business Club has completed plans for the organization of a company, with $100,000 capital, for the purpose of rebuilding the foundry of the Black Hills Mfg. Co., which was destroyed by fire. J. C. O'Donnell, owner of the old foundry, is interested in the new company and will manage the plant.

ST. LOUIS, MO.—Staudte & Ruekoldt Mfg. Co., De Kalb and Soulard Sts., are having plans prepared for a $50,000 factory. The building will be three stories high. A. F. Haeussler, 4415 North Market St., St. Louis, is Arch.

The Schwengler Soda Water Co., 2610 Pestolozzi St., will erect factory building, two stories high, 58 × 61 ft., of brick and stone, to cost $15,000. Plans were prepared by Theodore Rapp, 2816 Utah St.

SPOKANE, WASH.—W. H. Huston has purchased a lot on the south side of Sprague Ave., between Grant and Sherman Sts., and will erect thereon a 3-story brick dye-house. The cost of the building and machinery will be about $15,000.

PORTLAND, ORE.—A. J. Harper, 106 North Fifth St., has purchased a lot on the west side of West Park St., between Flanders and Glisan Sts., upon which he proposes to erect a brick building for a brass foundry.

BRIDGEWATER, N. S.—We are officially advised that on account of late discoveries of an additional gold-bearing seam at its mine, seven miles from this town, the Micmac Gold Mining Co., 2 Rector St., New York, contemplates installing additional machinery at once. The company will construct tube and slimes mills and will install concentrating machinery. Phil H. Moore is Consult. Engr.

CHIPPEWA, ONT.—The management of the British-Canadian Smelters, Ltd., of Toronto, has decided to locate the proposed plant here on a site of 2 acres adjacent to the old Slater dock. The company will construct a plant for smelting and refining and employ 500 men. Negotiations are under way for securing power from the Ontario Hydro-Electric Commission, Toronto.

KENORA, ONT.—We are advised that the Maple Leaf Flour Mills Co. will rebuild the plant destroyed by fire in January. The company also contemplates building a mill at Port Colborne, Ont.

VANCOUVER, B. C.—The Moresby Island Lumber Co. will commence construction of a lumber mill on Cumshaw Inlet soon, to cost $350,000.

MISCELLANEOUS CONTRACTS.

(denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news relative to canal projects, etc., will be found under Water Supply—Irrigation.

ROAD-ROLLER.—Indianapolis, Ind.—See under Garbage Disposal.

STREET SPRINKLING HYDRANTS.—Louisville, K.—See under Garbage Disposal.

BICYCLES.—New York, N. Y.—Bids are asked by Theodore Bingham, Police Comr., until 10 a. m., March 30, for furnishing 125 bicycles.

STEEL PLATE.—Duluth, Minn.—Bids are asked by Maj. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, until April 9, for furnishing steel plate at Superior, Wis.

*DOCK, WHARF.—New York, N. Y.—Bids are asked by G. C. Burnell, Constr. Q. M., Fort Wood, until 2.45 p. m., April 1, for the construction of storage dock and timber wharf at this post.

*BREAKWATER.—Boston, Mass.—Bids are asked until noon, April 17, by Lieut.-Col. Edw. Burr, Corps Engrs., U. S. A., for construction of superstructure of breakwater at Sandy Bay, Mass.

CEMENT.—Ottawa, Ont.—Bids are asked until 4 p. m., March 20, by L. K. Jones, Secy. Dept. Railways and Canals, Ottawa, for supplying 25,000 bbls. Portland cement for use in construction of the Trent Canal.

DITCH.—Long Prairie, Minn.—The contract for constructing Judicial Ditch No. 5, Todd County, Minn., has been awarded to GEORGE MOSHIER, of Staples, Minn. Estimated cost, $5,960.

*DREDGING.—Detroit, Mich.—Bids are asked by Lieut.-Col. C. McD. Townsend, Corps Engrs., U. S. A., until 3 p. m., April 17, for dredging Hay Lake and Neebish Channels, St. Marys River, Mich.

FENCE, GATES.—Fort Riley, Kan.—Bids are asked by Capt. W. M. Whitman, Constr. Q. M., U. S. A., until March 25, for furnishing and erecting 1,145 ft. iron pipe fence, including three pair of gates at this post.

*LIGHT-HOUSE, ETC.—Wilmington, Del.—Bids are asked until 11 a. m., April 6, by the Light-House Engr., Wilmington, for erecting the light-house, store-house, etc., at Bellevue Range Front Light-Station, Del.

CEMENT, SIGN BOXES, STREET SIGNS.—New York, N. Y.—Bids are asked until 2 p. m., March 24, by John F. Ahearn, Pres. Boro. Manhattan, for furnishing 500 bbls. Portland cement, 200 sign boxes and 2,000 street signs.

CABLE.—Washington, D. C.—The contract for furnishing submarine cable, Type No. 310, under bids opened March 9, has been awarded to the STANDARD UNDERGROUND CABLE CO., 56 Liberty St., New York, N. Y.

FIRE EXTINGUISHERS.—New York, N. Y.—Bids are asked until 11 a. m., March 30, by C. B. J. Snyder, Supt. School Bldgs., Bd. of Education, for furnishing fire extinguishing apparatus to the various schools in the Borough of Queens.

*WOODEN HULL.—Montgomery, Ala.—Bids were received on Feb. 1, by Capt. H. B. Ferguson, Corps Engrs., U. S. A., for constructing one creosoted wooden hull. The contract was awarded to the GULFPORT CREOSOTING CO., Gulfport, Miss.

*WALLS.—Buffalo, N. Y.—Bids were received on March 14 by Col. H. M. Adams, Corps Engrs., U. S. A., for constructing concrete walls for Ship Lock, Black Rock Harbor, Buffalo. Itemized bids received and full details are given this week under Contract Prices.

*ROCK REMOVAL.—New York, N. Y.—Bids are asked until noon, April 28, by Col. John G. D. Knight, Corps Engrs., U. S. A., Army Bldg., New York, for removal of Pot Rock, Frying Pan Reef and Middle Reef at Hell Gate, East River, N. Y.

CEMENT.—Galt, Ont.—Bids are asked until noon, April 1, by Joseph McCartney, Town Clk., for the supply of Portland cement required by the Corporation of the Town of Galt for the coming season. The quantity is estimated at 2,000 bbls. more or less.

DITCH.—Ivanhoe, Minn.—Bids were received on March 11 by R. H. Sisson, County Audr., for constructing Ditch No. 16. The contract for the work has been awarded to JERRY SHERWOOD, Litchfield, Minn., at $5,357. A. E. Morgan, St. Cloud, Minn., is Engr.

FENCE REPAIRS.—Brooklyn, N. Y.—Bids were received by the Department of Parks, New York, on March 12, for repairs and alterations to and painting of fences around parks and on parkways in the Boroughs of Brooklyn and Queens. EDWARD THERIAULT, 899 Quincy St., Brooklyn, secured the contract, at $6,430.

*PIERS.—Baltimore, Md.—Bids were received on March 11, by the Harbor Board, Baltimore, for constructing Piers 4, 5 and 6. The bids received were as follows: Sanford & Brooks Co., 15 South St., Baltimore, Md., $1,084,000; McClean Contracting Co., Baltimore, $1,400,000; Bennis Contracting Co., Philadelphia, Pa., $1,600,000.

*WIDENING CANAL.—Detroit, Mich.—List of bids received on March 5 by Col. E. L. B. Davis, Corps. Engrs., U. S. A., for widening St. Marys Falls Canal was given last week. The bid of Mason & Henger Co., Richmond, Ky., was given as $79,950. It should read $779,950. The itemized bids are given this week under Contract Prices.

PATROL BOAT.—Buffalo, N. Y.—BENJAMIN L. COWLES, 267 Elk St., Buffalo, who has general contract at $18,500 for constructing a patrol boat for the Police Commissioners, will sublet contracts at once for engines, pumps, condenser and direct connected electric light plant for the boat. It is estimated the above equipment will cost $5,000.

LUMBER.—Chicago Ill.—Bids are asked by the City of Chicago, Ill., until 11 a. m., March 21, for furnishing at the various bridges and viaducts in the City of Chicago, white pine, yellow pine, white oak and maple lumber, approximately as follows: White pine, 258,000 ft. B. M.; yellow pine, 136,000 ft., B. M.; maple, 16,000 ft., B. M. John J. Hanburg is Comr. Pub. Wks.

STONE CRUSHING PLANT.—Cornwall, N. Y.—The Storm King Stone Co. has awarded a contract to the Mashek Engineering Co., 141 Broadwya, New York, for a 1,000-cu. yd. per day stone crushing plant, to be built at Storm King Mountain on the Hudson River. The contract calls for the complete plant to be turned over to the owners in operation. All plans are complete and work on foundation and dock will be started at once.

*BARGE CANAL.—Albany, N. Y.—Bids were received by F. C. Stevens, Supt. Pub. Works, on March 10 for Contract No. 9. Erie Canal—Section 10, as advertised on Feb. 13. Contract was awarded to the THOMAS CRIMMINS CONTRACTING CO., 444 East 69th St., New York, at $755,995. (For list of bids and itemized prices, see under Contract Prices in this issue).

One bid for this work was received on Jan. 31 and rejected. Itemized prices were given on Feb. 6.

*DREDGING.—New London, Conn.—Bids were received on March 13 by Major Harry Taylor, Corps Engrs., U. S. A., for dredging in Pawcatuck River and Little Narragansett Bay, R. I., and Conn. The bids were as follows: John P. Randerson, Albany, N. Y., 22 cts.; Maritime Dredging Co., New York, N. Y., 34 cts.; John & Joseph McSpirit, Jersey City, N. J., 32 cts.; The T. A. Scott Co., Inc., New London, Conn. (recommended for acceptance), 21.25 cts.; J. S. Packard Dredging Co., Providence, R. I., 25.9 cts.

PIER.—Santa Monica, Cal.—Bids were received on March 2 by the City Council for construction of a pier at the foot of Colorado Ave. This structure will contain about 200 concrete piles, which are to be reinforced. Cost, $100,000. Thomas H. James is City Engr. The contract was awarded on March 9. Following are the bids: A. STUTZER CEMENT & GRADING CO., Tajo Bldg., Los Angeles, Cal., $82,890 (awarded contract); Cotton Bros., $89,750; Greenleaf Carpenter Co., $93,750; A. H. Calkins & Co., $93,850; Atlantic, Gulf & Pacific Co., $108,000.

*DREDGING.—New London, Conn.—Bids were received by Major Harry Taylor, Corps Engrs., U. S. A., on March 11, for dredging in Thames River, Conn. Following are the bids: P. Sanford Ross, Inc., Jersey City, N. J., 19.7 cts.; John P. Randerson, Albany, N. Y., 16 cts.; Maritime Dredging Co., New York, N. Y., 26 cts.; Atlantic Dredging Co., New York, N. Y. (recommended for acceptance), 14.3 cts.; T. A. Scott Co., Inc., New London, Conn., 19 cts.; J. S. Packard Dredging Co., Providence, R. I., 15.3 cts.; John & Joseph McSpirit, Jersey City, N J., 24 cts.; Charles M. Cole, Fall River, Mass., 17.75 cts.

DREDGING.—Oakland, Cal.—Bids were received on March 12, by Lieut.-Col. John Biddle, Corps Engrs., U. S. A., 1840 Polk St., San Francisco, for dredging in Oakland Harbor. The bids follow, price given per cu. yd.: (a) Sections A and B, 1,768,100 cu. yds.; (b) Sections C, D and E, 1,916,700 cu. yds.: Nicholas R. Harris, 6 East St., San Francisco, Cal., (a) 16.5 cts., (b) 21.5 cts.; Burrell Bridge & Construction Co., Central Bank Bldg., Oakland, Cal., (a) 25.7 cts., (b) 25.2 cts.; Pacific Coast Dredging & Wrecking Co., 6 East St., San Francisco, Cal., (a) 27 cts., (b) 25 cts.; Standard American Dredging Co., Merchants' Exchange Bldg., San Francisco, Cal., (a) 17.48 cts., (b) 20.48 cts.; San Francisco Bridge Co., Monadnock Bldg., San Francisco, Cal, (b) 18.8 cts.

*SEA WALL, WHARVES.—San Francisco, Cal.—Bids are asked until noon, May 4, by Geo. McK. Williamson, Constr. Q. M., Fort Mason, for construction at Fort Mason, San Francisco, Cal., of a sea wall, crib wall, transport wharves and sheds for new Army Supply Depot for Quartermaster's Department, U. S. A., in strict accordance with drawings and specifications by Rankin, Kellogg & Crane, Archs., 1012 Walnut St., Philadelphia, Pa., copies of which may be had upon application here or to Depot Quartermaster, New York, N. Y., or to Chief Quartermaster, Department of the Lakes, Chicago, Ill. Alternative proposals will also be received based on any form of permanent construction. Such alternative proposals muts be accompanied by full detail drawings and specifications to be considered.

CEMENT.—Washington, D. C.—The Secretary of the Interior has awarded contracts for furnishing cement to be used in the construction of Government irrigation projects, as follows:

To the WESTERN PORTLAND CEMENT CO., Belle Fourche, S. Dak., at Belle Fourche, for the Belle Fourche project, 12,000 bbls., at $2.18 per bbl.

To the UNIVERSAL PORTLAND CEMENT CO., South Chicago, Ill., f. o. b. cars at South Chicago, for Montana and North Dakota projects, 12,000 bbls., at 95 cts. per bbl.

The PORTLAND CEMENT CO., Portland, Colo., f. o. b. cars at mill, for the Pathfinder dam, North Platte irrigation project, Wyoming-Nebraska, 12,000 bbls., at 98 cts. per bbl.

To the WESTERN BUILDING MATERIAL CO., f. o. b. cars at its mill, Napa Junction, Cal., for the Payette-Boise project, Idaho, 7,500 bbls., at $1.10 per bbl., subject to the determination as to the suitable character of the cement.

To the UNITED KANSAS PORTLAND CEMENT CO., of Iola, Kan., for delivery f. o. b. cars at Gas, Iola, or Independence, Kan., 20,000 or 12,000 bbls., for use in Arizona and New Mexico.

U. S. POSSESSIONS AND CUBA.

(denotes that this work is advertised in Engineering News.)*

STEEL RAILS.—Panama.—Bids were received as follows March 16, at the Isthmian Canal Commission, Washington, D. C., for furnishing 2,200 gross tons of 70-lb. steel rails: United States Steel Products Export Co., 24 State St., New York, $71,390; R. C. Hoffman Co., Baltimore, $68,200; Bethlehem Steel Co., South Bethlehem, Pa., $77,000; Lackawanna Steel Co., 2 Rector St., New York, $65,450, New York delivery.

LUMBER.—Panama.—Bids were received as follows March 16, at the Isthmian Canal Commission, Washington, D. C., for furnishing about 660,000 ft. B. M. of long leaf yellow pine lumber. D. L. Gillespie 462 Wood St., Pittsburg, $21,675, $20,365; A. S. Bacon & Sons, 2 Bay St., West, Savannah, Ga., $25,293; Dixon Lumber Co., Savannah, Ga., $17,971; G. Elias & Bros., Buffalo, $20,328; Wm. D. Gill & Sons, Baltimore, $20,362; S. E. Naylor & Co., Gulfport, Miss., $27,085; Southern Sawmill Co., New Orleans, La., $19,902.

CONTRACT PRICES.

[Where * precedes items under Contract Prices the work was advertised in Engineering News.]

*BARGE CANAL, Albany, N. Y.—Two bids were received by F. C. Stevens, Supt. Public Works, on March 10, for Barge Canal Contract No. 9, which is for the improvement of the present Erie Canal from 0.164 miles east of Eagle Harbor bridge to 0.09 mile west of Beal's bridge, Olean County; length of contract, 5.682 miles. The Engineer's estimate (A) is $724,014. The bidders were: Walsh Construction Co., Davenport, Iowa, (B) $789,654; THOMAS CRIMMINS CONTRACTING CO., 444 East 69th St., New York, (C) $766,395. (The contract was awarded to the THOMAS CRIMMINS CO., upon company reducing its bid to $755,995.) This is the second advertisement of this contract, the only bid, that of the Lake Erie Dredging Co., of Buffalo, N. Y., in amount $796,269, received on the previous opening of bids on Jan. 31, having been rejected. The itemized prices were as follows:

	(A)	(B)	(C)
Clearing, lump sum	$1,800.00	$3,000.00	$1,800.00
40,000 Cu. yds. grubbing	.30	.45	.50
751,000 cu. yds. excavation	.45	.51	.50
50 M. B. M. sheeting and bracing, per M B. M	50.00	50.00	50.00
446,000 cu. yds. forming embankment	.15	.18	.17
16,000 cu. yds. lining	1.50	1.50	2.10
4,000 cu. yds. puddle	2.00	2.00	2.00
70 M. B. M. sawed lumber (yellow pine or Douglas fir per M. B. M	55.00	55.00	50.00
30,400 lin. ft. foundation piles	.30	.30	.24
3,500 cu. yds. second class concrete	7.50	7.50	6.75
4,520 cu. yds. third class concrete	6.50	6.50	6.25
470 cu. yds. reinforced concrete	10.00	10.00	8.50
190 cu. yds. first class masonry	20.00	20.00	19.00
110 cu. yds. first class masonry backing	8.00	8.00	7.50
30 cu. yds. first class masonry coping	30.00	30.00	28.00
8 cu. yds. first class masonry ring stones	35.00	35.00	35.00
70 cu. yds. first class masonry sheeting	30.00	30.00	28.00
17 cu. yds. brick masonry	15.00	15.00	15.00
41,000 cu. yds. wash wall	2.50	2.50	2.50
300 sq. yds. second class stone paving	1.50	1.50	1.50
1,400 sq. yds. third class stone paving	1.25	1.25	1.25
310 cu. yds. third class riprap	2.50	2.50	2.00
927,000 lbs. c.-i. culvert pipe and specials, per lb	.03½	.035	.02
60 lin. ft. 8" vitrified pipe laid	.50	.50	.50
60 lin. ft. 15" vitrified pipe laid	1.25	1.25	1.25
60 lin. ft. trenching and backfilling for 8" pipe	.15	.15	.15
60 lin. ft. trenching and backfilling for 15" pipe	.25	.25	.25
690,000 lbs. structural steel, per lb	.05	.05	.05
110,000 lbs. metal reinforcement, per lb	.04	.04	.035
20 sq. yds. flagstone walks	1.50	1.50	1.50
8,700 lin. ft. wooden fence	.20	.20	.20
30 lin. ft. wrought-iron pipe railing	1.50	1.50	1.50
850 lin. ft. lattice railing	1.50	1.50	1.50
2 taking up and resetting catch basin covers, each	5.00	5.00	5.00
For maintaining navigation, lump sum	8,000.00	8,000.00	8,000.00
For maintaining highway traffic, lump sum	2,500.00	2,500.00	2,500.00
Deduct price to be paid to the State of New York for buildings in place, which are to be removed without expense to the State, lump sum	1,000.00	1,000.00	1,000.00
Deduct price to be paid to the State of New York for bridge superstructures which are to be removed without expense to the State. lump sum	200.00	200.00	200.00
Totals	$724.014	$789,654	$766,395

*INTERCEPTER.—Louisville, Ky. — Bids were received as follows on March 12 by the Commissioners of Sewerage, for the construction of Section "A" of the Beargrass interceptor; (A) E. G. Nave Bro. & Co., Louisville; (B) A. S. McCracken, Columbus, Ohio; (C) American Engineering & Construction Co., Chicago, Ill.; (D) H. J. Stevens, Knoxville, Tenn.; (E) Henry Bickel Co., Louisville, Ky. P. L. Atherton is Chn. Comrs.; J. B. F. Breed is City Engr.:

	(A)	(B)	(C)	(D)	(E)
2,109 lin. ft. earth excavation and refill	$4.27	$6.68	$17.00	$10.80	$11.80
328 lin. ft. earth excavation and refill	1.60	8.00	17.00	10.80	5.70
2,119 lin. ft. earth excavation and refill	16.00	17.00	22.00	19.10	35.00
Earth excavation and refill for outlet structure, lump sum	800.00	1,698.00	4,463.00	800.00	2.540.00
Earth excavation and refill for junction section, lump sum	175.00	395.00	308.00	300.00	385.00
Earth excavation and refill for siphon Sta. 15 + 65, lump sum	56.00	300.00	189.00	300.00	100.00
Earth excavation and refill for siphon Sta. 17 + 35, lump sum	150.00	1,000.00	630.00	2,000.00	960.00
1,753 cu. yds. concrete masonry in un-reinforced structures	11.50	9.00	9.20	15.00	9.85
1,591 cu. yds. concrete masonry in reinforced structures	7.00	7.00	8.70	9.00	9.85
154 cu. yds. concrete masonry outlet, junctions, siphons and manholes	15.00	14.00	12.50	40.00	14.85
129.780 lbs. reinforcing metal in place—plain square bars	.029	.039	.03	.0345	.03
126,000 lbs. reinforcing metal in place	.03	.039	.03	.035	.03
126,000 lbs. reinforcing metal in place	.0325	.04	.0275	.035	.035
100 cu. yds. earth excavation trench and tunnel below masonry or under drain	.50	4.00	.94	3.00	1.00
100 cu. yds. gravel refilling trench and tunnel below masonry or under drain	1.00	2.50	.94	3.00	1.00
108 lin. ft. manholes, complete, exclusive of reinforcing, castings and ladders	5.00	4.00	5.00	10.00	5.00
23,825 lin. ft. piles driven and cut off	.33	.50	.36	1.00	.40
3,780 lin. ft. furnishing and laying 8" underdrain and gravel refilling	.25	.30	.56	.30	.75
Cleaning up	200.00	1,000.00	661.00	2,000.00	4,700.00
Totals	$91,699	$104,428	$141,408	$150,087	$168,346

Engineer's Estimate, $121,529.

*WALLS.—Buffalo, N. Y.—Bids were received on March 14 by Col. H. M. Adams, Corps Engrs., U. S. A., for constructing concrete walls for Ship Lock, Black Rock Harbor, Buffalo. Bidders and itemized bids were as follows: (A) Great Lakes Dredge & Dock Co., Chicago, Ill.; (B) Buffalo Dredging Co., Buffalo, N. Y.; (C) The Foundation Co., New York City; (D) T. R. Gillespie Co., New York City; (E) Reed & Coddington Engr. Co., Niagara Falls, N. Y.; (F) McArthur Bros. Co., 11 Pine St., New York City:

	(A)	(B)	(C)	(D)	(E)	(F)
Cofferdam—						
6,910 tons steel sheet piling	$56.00	$55.00	$52.40	$62.00	$70.00	$53.00
192,000 lbs. steel waling and braces	.06	.07	.08	.03½	.10	.05
40,000 cu. yds. clay filling	.90	.65	1.00	.50	.85	.45
20,000 cu. yds. clay banking	.40	.65	.82	.50	.50	.35
Pumping out and maintenance, lump sum bid	50,000.00	35,000.00	42.648.00	30,000.00	45,000.00	8,000.00
Total for cofferdam	$492,480.00	$467,490.00	$476,492.00	$495,140.00	$591,90.00	$408,830.00
Lock walls—						
175,000 cu. yds. excavation	$0.55	$0.40	$0.23	.43	.30	.19
5,000 cu. yds. excavated material placed by derrick	.90	1.00	.50	.60	.50	.40
5,000 cu. yds. dredging channel	.20	.40	.35	.40	.25	.16
74,000 cu. yds. concrete	4.40	4.75	5.64	5.75	7.31	4.37
323 cu. yds. granite for quoins	60.00	80.00	67.00	75.00	50.00	60.00
116,740 lbs. cast-steel for quoins	.09	.07	.12	.07	.10	.16
1,500 lin. ft. steel culvert, 72"	18.00	20.00	15.51	15.00	15.00	15.65
100 lin. ft. steel culvert inlet, 30"	10.00	12.50	6.67	8.00	7.00	8.65
200 lin. ft. steel culvert branches, 18"	5.50	7.00	6.62	8.00	5.00	6.65
97 lin. ft. steel pump well pipes, 30"	10.00	12.50	6.67	8.00	7.00	8.65
56 lin. ft. steel drain pipe, 18"	5.50	7.00	6.27	8.00	5.00	6.65
45,700 lbs. steel I-beams and channels	.05	.07	.03½	.05	.05	.05
13,500 lbs. w.-i. or steel lap-welded cable pipes	.08	.12	.09	.10	.05	.10
10 cast steel bases	85.00	125.00	93.00	200.00	102.40	100.00
40 wrought steel I-bars	35.00	30.00	43.75	75.00	58.40	65.70
9,600 lbs. wrought steel anchorage bolts	.06	.08	.07½	.10	.08	.05
6 mooring posts	60.00	50.00	58.75	100.00	46.00	40.00
20 mooring cleats	30.00	25.00	18.65	25.00	30.00	25.00
Grand total with granite quoins	$977,039	$965,321	$993,522	$1,062,309	$1,238,613	$823,304
Grand total with steel quoins	$967,866	$947,253	$985,555	$1,045,881	$1,233,887	$822,303

ASPHALT PAVING.—Seattle, Wash.—Bids in detail were received as follows on March 7 by the Board of Public Works for paving Yesler Way with asphalt and sandstone; (A) Sparger Concrete Co., Colman Bldg., Seattle; (B) P. J. McHugh, Seattle; (C) H. F. Jahn & Co., Empire Block, Seattle; (D) F. McLellan & Co., Burke Block,

	(A)	(B)	(C)	(D)
Fixed estimate	$2,500.00	$2,500.00	$2,500.00	$2,500.00
Clearing and grubbing, lump sum	2,400.00	2,000.00	3,000.00	3,000.00
9,000 cu. yds. sub-grading	.70	.58	.70	.50
190 lin. ft. 8" pipe sewer	1.80	1.25	1.60	1.50
8 catch basins, no inlets	55.00	50.00	70.00	50.00
7 catch basins, single inlets	70.00	55.00	85.00	65.00
1 catch basin, double inlet	80.00	65.00	90.00	65.00
1 new inlet	20.00	25.00	16.00	20.00
1,385 lin. ft. curved granite curb	2.00	1.98	2.10	2.00
12,643 lin. ft. concrete curb	.45	.40	.45	.40
650 cu. yds. concrete sidewalks	1.20	1.25	1.50	1.20
10,176.8 sq. yds. asphalt paving	2.25	2.05	2.15	2.10
11,081 sq. yds. sandstone paving	4.25	3.48	4.25	4.00
2,354 sq. yds. brick gutters	2.90	2.85	2.10	3.00
1,120 lin. ft. wood stop	.40	.45	.50	.60
1 manhole	70.00	70.00	75.00	70.00
29 monument cases	8.00	10.00	10.00	10.00
21 catch basins	25.00	20.00	30.00	5.00
18 inlets to be moved	5.00	2.00	4.00	7.00
800 lin. ft. 3" sewer pipe	.15	.10	.20	.10
66 M. H. C. B. & G. C. covers, adjusted	3.00	2.00	4.00	3.00
102 sq. yds. brick alley crossings	2.90	2.85	3.00	3.00
5 M. ft. B. M. new lumber	20.00	17.00	25.00	20.00
200 M. ft. B. M. old lumber	4.00	2.00	3.00	10.00
2 M. ft. B. M. relaying wood curb	6.00	5.00	8.00	10.00
700 cu. yds. concrete bulkhead	7.50	8.00	8.00	7.00
256 lin. ft. wood railing	.15	.25	.30	.25
132 lin. ft. 8" c.-i. pipe, "A"	2.50	2.60	2.20	1.70
90 lin. ft. 6" c.-i. pipe, hydrant connections	1.40	1.60	1.50	1.25
4 hydrants	85.00	80.00	80.00	85.00
2 8" gates	30.00	30.00	24.00	30.00
24 brick gate chambers	45.00	35.00	35.00	60.00
200 lin. ft. 1" galvanized-iron pipe	.35	.60	.60	.30
Totals	$108,761	$95,333	$100,701	$103,703

*WIDENING CANAL.—Detroit, Mich.—Bids were received as follows on March 5 by Col. E. L. B. Davis, Corps Engrs., U. S. A., for widening St. Marys Falls Canal (as noted last week); (A) Great Lakes Dredge & Dock Co., Chamber of Commerce Bldg., Chicago, Ill.; (B) P. B. McNaughton, Bigtree, Buffalo, N. Y.; (C) MacArthur Bros. Co., 27 Dearborn St., Chicago, Ill.; (D) Mason & Henger Co., Richmond, Ky.:

	(A)	(B)	(C)	(D)
9,500 cu. yds. special concrete	$5.00	$6.40	$5.80	$8.00
7,000 cu. yds. concrete	4.00	4.00	4.60	6.00
20,000 cu. yds. filling with stone	.30	.40	.75	.70
150,000 cu. ft framing timber cribs	.10	.16	.20	.10
85,000 sq. ft. channeling rock	.30	.35	.30	.40
360,000 cu. yls. excavation, Class B	1.30	1.30	1.30	1.35
135,000 cu. yds. excavation, Class A	.55	.52	.58	.89
Total	$664,250	$691,550	$704,100	$779,950

FOREIGN CONTRACTS.

(denotes that this work is advertised in Engineering News.)*

RAILWAY TIES.—Italy.—Eugenio Morasca, Genoa, Italy, desires correspondence regarding purchase of 300,000 to 400,000 oak railway ties.

BRIDGE.—Netherlands.—Bids are asked by the Provincial Administration at Maestricht until noon, April 10, for construction of a reinforced-concrete bridge and for a culvert giving access to the bridge.

LIGHT-HOUSES.—Brazil.—Bids are asked until March 25 by the Reparticao da Carta Maitima do Brazil, at 3 rua D. Manoel, Rio de Janeiro, for the construction of light-houses on the coast of Brazil, and the supply and installation of lighting apparatus.

CANAL LOCKS.—Belgium.—Bids are asked until 11 a. m., March 24, by M. Genard, Ingénieur-en-chef, Directeur des Ponts et Shaussées, Rue Capouillet 54, St. Gilles, Belgium, for construction of Locks Nos. 41 and 42 of the Charleroi-Brussels canal. Estimated cost, 1,211,071 francs ($242,214). Deposit of 60,000 francs ($12,000) is required.

BRIDGE, RIVER IMPROVEMENT.—Belgium.—Bids are asked until March 22 (by registered post) by the Bureaux des Finances, Hotel de Ville, Ghent, for the construction of a stationary bridge and the straightening of the River Lys below the Communal rifle-range. The cost of the work is estimated at 275,000 francs (about $55,000). The qualifying deposit on each bid is 27,500 francs (about $5,500).

ROAD ROLLERS.—Spain.—Bids are asked by the Direccion-General de Obras Publicas of Madrid until March 26 for the receipt of bids, from home and foreign constructors, for the supply of steam road rollers to be used on the roads in the provinces of Santa Cruz de Tenerife, Seville, Jaen and Lugo. A deposit of 1,000 pesetas (about $200), will be required to qualify any bid.

CATALOGS.—China.—Charles, J. Arnell, U. S. Vice Consul-General, states that American catalogs are placed on file in the exhibit room of the Antung consulate, where an interpreter is detailed to translate for Chinese inquirers such portions thereof as may be of interest to them and to direct them to foreign firms through which they may place any orders they might wish to make.

RAILWAY CONCESSION.—Spain.—Bids are asked by the Dirección-General de Obras Publicas, Madrid, until noon, May 6, for the concession for a railway from Lérida to the entrance of the international tunnel on the French frontier, at the valley of Salat. A deposit of 745,140 pesetas (about $149,000) will be required to qualify any bid. The State offers a subvention of 60,000 pesetas (about $12,000) per kilometer.

CABLE-LAYING.—Spain.—Bids are asked until noon, March 30, for laying a cable between the Canary Islands and Nemours (Asgelic). Bids, which must be accompanied by a deposit of 10,000 pesetas (about $2,000), should be addressed to the Registro de la Direction General de Correos y Telegrafos, Seccion de Telegrafos, Madrid. The successful bidder will be required to increase the deposit to 20,000 pesetas ($4,000).

ELECTRIC RAILWAY, LIGHTING.—Brazil.—Bids are asked for the leasing of the electric street railway and lighting system belonging to the State of Amazonas, Brazil. Bids for this proposition must be deposited with the Treasurer of the State of Amazonas, Manaos, on or before April 1, 1908. It is suggested that interested parties will save time by writing direct to the official named above or the American Consular Agent in Manaos.

RAILWAYS.—Argentina.—The Minister of Public Works has ordered continuation of construction on the following lines: From Chumbicha and Rioja to Tinogasta and Andalga; from Zuviria to Guachipas; from La Toma to Dolores; Cerrillos to Rosario de Lerma; Serrezuela to San Juan; Cejas to Antilla; Ledesma to Enbarcacion; Aminga branch on the Chumbicha-Rioja line; prolongation to Bolivia of the Central Northern and the section to Santa Fe.

BUILDING.—Jamaica. — The AMBURSEN HYDRAULIC CONSTRUCTION CO. OF CANADA, Ltd., Montreal, Que., has contracted to construct a bank building for the Bank of Nova Scotia at Kingston, Jamaica. Building is to be of reinforced concrete throughout and made to conform to requirements of a tropical climate. The architects are Darling & Pearson, of Toronto, Ont. The Ambursen Hydraulic Construction Co. has an office at 176 Federal St., Boston, Mass.

TELEPHONE SYSTEM.—Spain.—Bids are asked by the Dirección-General de Obras Publicas, Madrid, until noon, April 2, for each or all of the sections of the following telephone system construction and operation. Contract comprises (a) the construction and working of the interurban service of the Northwest; (b) the construction and working of the interurban service of the Southeast; (c) the construction and working of the

interurban service of the South; (d) the extension of the interurban service of the North East, the addition of 19 new stations and the working of the system. Bids for each or all of the sections will be received, and deposits of (a) 182,000 pesetas; (b) 145,000 pesetas; (c) 150,000 pesetas, and (d) 167,500 pesetas will be required to qualify bids, these deposits being calculated at 5% of the value of each contract. (Peseta = .193 cts.)

LAYING CABLES.—Australia.—Bids are asked until noon, April 14, at the office of the Secretary, Postmaster-General's Department, 51 Spring St., Melbourne, for construction and laying two cables between Victoria and Tasmania. Specifications, bidding sheet, etc., may be obtained at the Commonwealth Offices in London, 72 Victoria St., S. W., where also preliminary deposits on bids may be paid. A copy of the specification and conditions may be inspected at the Commercial Intelligence Branch of the Board of Trade, 73 Basinghall St., London, E. C.

CEMENT.—Egypt.—Bids are asked until noon, April 13, for the supply of 6,000 metric tons of Portland cement to the Egyptian State Railways. Bidders will be required, before sending their offers, to forward to the Central Office of the Engineering Department, Egyptian State Railways, Cairo, about 50 kilogs. of the cement they propose to supply. A provisional deposit of $500 must be made at the Central Treasury of the Railway Administration, at Cairo, in order to qualify any bid. Bids must be delivered by registered post to the Director General of the State Railways, at Cairo.

RAILWAY.—Belgium.—Bids are asked until 11 a. m., March 25, by the Société Nationale des Chemins de Fer Vicinaux, Rue de la Science 14, Brussels, for the construction of the section from Estinnes-au-Val (station) to Estinnes-au-Mont (terminus) of the local railway from La Louvière to Estinnes-au-Mont. The cost is not to exceed 127,037 francs (about $25,407). A deposit of 13,000 francs (about $2,600) will be required to qualify any bid. Bids must be delivered to the Director-General (in registered envelopes) not later than March 24. Plans, conditions, etc., may be consulted at the Bureau des Adjudications (Musée Commercial), Rue des Augustins 15, Brussels, and copies of the specification obtained there at 1 franc per copy.

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

BALLAST CARS.—Philadelphia, Pa.—A. V. Kaiser & Co., Drexel Bldg., Philadelphia, Pa., are in the market for twenty Rodger convertible ballast cars, according to recent advices.

CONCRETE BLOCK MACHINES.—Houston, Tex.—The Weber-Duller Construction Co., Houston, Tex., writes us that printed matter is desired on the subject of concrete block machines.

STEAM SHOVEL.—Philadelphia, Pa.—We are advised by A. V. Kaiser & Co., Drexel Bldg., Philadelphia, Pa., that they are in the market for a second-hand Model 91 Marion steam shovel.

TELEPHONE, SEWAGE DISPOSAL AND WATER SUPPLY SYSTEMS FOR FARMS.—Connecticut.—We are informed that catalogs, circulars, etc., are wanted for furnishing and installing above mentioned systems in three farmhouses located near each other. A fourth house, to which it is intended to extend the telephone system, is located about a third of a mile from the three houses referred to. Information about plumbing for country houses is also wanted. Address E. H. F., c/o Engineering News, New York.

CIVIL SERVICE EXAMINATIONS.

INSPECTOR OF METERS AND WATER CONSUMPTION.—New York, N. Y.—Applications will be received until 4 p. m., March 30, by the Municipal Civil Service Commission, 299 Broadway, for the position of inspector of meters and water consumption. The examination will be held April 28. Salary, $1,000 a year. Age limit, 21 years. F. A. Spencer is Secy. Comn.

SUPERINTENDENT OF ROAD CONSTRUCTION.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on April 1 to secure eligibles from which to make certification to fill vacancies as they may occur in the position of superintendent of road construction, at $4 to $7 a day, Office of Public Roads, Dept. of Agriculture. Age limit, 20 years. Application Form 1312.

DRAFTSMAN, STENOGRAPHER, TYPEWRITER.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on March 25, to secure eligibles from which to make certification to fill a vacancy in the position of draftsman (stenographer and typewriter), either sex, at $900 a year, in the Bureau of Plant Industry, Dept. of Agriculture, and vacancies requiring similar qualifications as they may occur in any branch of the service. Age limit, 18 years. Application Form 304.

PERSPECTIVE DRAFTSMAN.—Washington, D. C.—An examination will be held by the U. S. Civil Service Commission on March 25-26, to secure eligibles from which to make certification to fill a vacancy in the position of perspective draftsman, $1,800 a year, Office of the Supervising Architect, Treasury Dept., and vacancies requiring similar qualifications as they may occur in any branch of the service. The appointee in this position should be an architectural draftsman with knowledge of perspective drawing and the rendering of architectural drawings either in pen-and-ink or color, or both. Age limit, 18 years. Application Form 1312.

SOIL CHEMIST.—Washington, D. C.—On March 25 the U. S. Civil Service Commission will hold an examination to secure eligibles from which to make certification to fill a vacancy in the position of soil chemist, in the Bureau of Soils, Dept. of Agriculture, at a salary of from $2,000 to $2,500 a year, depending upon the qualifications of the eligibles, and vacancies requiring similar qualifications as they may occur. Applicants will not be assembled for any of the tests. Age limit, 20 years. Application Form 304.

MICRO-ANALYST.—Washington, D. C.—An examination is announced by the U. S. Civil Service Commission on April 1, to secure eligibles from which it is expected to make certification to fill several vacancies in the position of micro-analyst (either sex), at $1,500 a year, and at lower salaries, depending upon the qualifications shown, in the Bureau of Chemistry, Department of Agriculture, and vacancies requiring similar qualifications as they may occur in that Department. Competitors will not be assembled. Age limit, 20 to 40 years. Application Form 304.

INDUSTRIAL NOTES.

THE PARKER BOILER CO., Philadelphia, Pa., announces the following recent installations: Quincy Mining Co., Hancock, Mich., three 234-HP. boilers; City Laundry Co., Pueblo, Colo., one 116-HP. boiler; Hawaiian Pineapple Co., Honolulu, T. H., two 122-HP. boilers.

THE DIRECTORS of the Harbison-Walker Refractories Co., Pittsburg, have elected Vice-Pres. H. W. Croft, Pres., to succeed the late S. C. Walker. Hay Walker is now Vice-Pres., and William Walker has succeeded S. C. Walker on the Board of Directors.

E. H. LUDEMAN & CO., 42 Broadway, New York, advise that they have arranged with the Detroit Stoker & Foundry Co., Detroit, Mich., to represent the latter throughout the Eastern States, and for all the export trade, for the sale of the Detroit Automatic Stoker.

THE VULCAN TOOL MANUFACTURING CO., Quincy, Mass., succeeds to the businesses formerly conducted by the Alexander Clark Company and the Gifford-Pinel Company. It is the purpose of the new corporation to manufacture tools of iron and steel in great variety and of a superior quality for contractors and the quarry and stone trade.

THE AMERICAN STEEL & WIRE CO., Chicago, announces that a patent has been granted to its wire-rope expert, Mr. Olaf Tangring, for a method of so laying a rope in manufacture that it will not twist when lifting a load and thus cause the load to spin. It is said that no matter how long the rope may be, as in a deep shaft, it will not tend to spin the load.

THE WISCONSIN ENGINE CO., of Corliss, Wis., has received the resignation of Frank Engelhardt, who was in charge of the Chicago sales office of this company. The Wisconsin Engine Co. closed the Chicago office on March 1, 1908, and for the time being will conduct the business from that district under the direct charge of C. T. Myers, General Sales Manager at Corliss.

ROBERT C. MORRIS has been appointed receiver in bankruptcy for the Breakwater Construction & Engineering Co., of 115 Broadway, New York. The company has contracts on hand for work on the Cleveland (Ohio) Breakwater, Ashtabula Breakwater, Fairport, Ohio; Sandusky Bay, Ohio; Point Judith Breakwater, Cape May Jetties, Cape Ann, Mass., and New Haven (Conn.) Harbor.

WM. GARDAM & SON, INC., makers of drilling machines, 45-51 Rose St., New York, have just completed the purchase of a factory site at Arlington, N. J., about 200 × 100 ft. On this they purpose shortly to erect a suitable building for the growing needs of their business; in the meantime, as soon as the necessary alterations are completed, they will make use of the building formerly occupied by the Hoyt Metal Co., now on the property.

THE UNITED GAS MACHINERY CO., incorporated under the laws of the State of New York, has taken offices in the Engineering Bldg., 114-118 Liberty St., New York City.

The company has taken over the business formerly conducted by Thos. F. Fitzsimmons at 100 Broadway, and will manufacture a complete line of gas generators for making producer gas for gas engines and heating, and water gas for high temperature furnaces, forges, annealing, etc.

THE ELECTRIC CABLE CO. of 17 Battery Place, New York, whose plant at Bridgeport, Conn., was partially destroyed by fire, announces that arrangements have been made which will permit of filling all orders received for their various products, including Voltax, the transparent protective compound; rubber covered wires, weatherproof wires and cables, magnet wire, annunciator and office wire, etc. Pending adjustment of insurance details, the company will make no announcement of its plans for rebuilding.

THE WHITE OAK MILLS, controlled by the Proximity Mfg. Co., of Greensboro, N. C., has lately entered its third order with the Green Fuel Economizer Co., Matteawan, N. Y., for an equipment of Economizers. These mills are the largest denim mills in the world, employing 1,300 operatives and working up about 145 bales of cotton per day, on the average. The buildings are of the latest improved construction, with saw-tooth roofs to secure good lighting and other modern improvements and machinery. Not only is this the third order for Green Economizers from the White Oak Mills, but in addition, the owners have bought a Green Economizer for the Proximity Mills, two for the Mineola Mills, two for the Revolution Mills, making a total equipment of about 8,000 HP.

THE RAYMOND CONCRETE PILE CO., of New York and Chicago, has been awarded the contract for the concrete pile foundations for a baggage room and dormitory to be erected at Ellis Island, New York Harbor. The new structure will be on the main island of the group, and work on the foundations is under way. This is the fourth contract to be awarded the Raymond company at the immigration station. Work was concluded only a short time ago on the concrete piling foundation which supports the new group of contagious diseases hospital buildings on Island No. 3. In the latter instance, more than 1,500 Raymond concrete piles were placed.

PETTIBONE, MULLIKEN & CO., of Chicago, Ill., manufacturers of railway supplies, are having built in the shops of Allis-Chalmers Co., at West Allis, Wis., a horizontal, heavy-duty, two-stage air compressor, with steam cylinders 12-in. and 24 × 36-in. and air cylinders 20-in. and 12 × 36-in., which is practically a duplicate of the machine that they now have in service. This has been designed to furnish 1,200 cu. ft. of free air per minute at a discharge pressure of 105 lbs. Two-stage compression is now recommended by experienced engineers for anything beyond very moderate pressures, the air being thoroughly cooled, between stages, by inter-coolers such as that furnished with the above-named machine; so as to take full advantage of the economy obtainable from this system.

THE WESTINGHOUSE MACHINE CO., Pittsburg, Pa., builders of the Roney Mechanical Stoker, reports for the first two months of this year a good demand for stoker equipment. The Merchants Ice & Cold Storage Co., of Cincinnati, is installing three equipments; the Montgomery Ice & Cold Storage Co., Jenkintown, Pa., two equipments; and the Holt Ice & Cold Storage Co., Indianapolis, Ind., the same number. Another municipal lighting station at Troy, Ohio, operated by the Board of Public Service, has adopted Roney stokers, and the Pennsylvania Light, Heat & Power Co., of Allegheny, Pa., operating a large central station at that place, increases its present equipment with two stokers of large capacity. The Mutual Union Brewing Co., Alliquippa, Pa., is installing three equipments, and the Alpha Portland Cement Co., operating a number of plants in the country, one of the largest size.

THE B. F. STURTEVANT CO., Hyde Park Mass., reports the following recent sales of electrical equipment through its New York representative, F. R. Chinnock: Board of Water Supply, Babylon, N. Y., one 9 × 8 vertical center crank engine direct connected to a standard slow speed 25-KW. generator. Federal Ice Co., Newark, N. J., one 9 × 8 vertical engine, direct connected to 30-KW. generator. Thompson-Starrett Co., New York City, one 8 × 8 vertical engine, direct connected to 25-KW. generator. Eberhard Faber Pencil Co., Brooklyn, N. Y., one 16 × 14 horizontal engine, direct connected to one 100-KW. generator. American Can Co., Lubec, Me., one 9 × 12 horizontal engine, direct connected to 40-KW. generator. Williamson Balfour Co., N. Y. City, one 13 × 12 horizontal engine, direct connected to one maximum English dynamo, for Callao. New York Steam Co., N. Y. City, one 8 × 8 vertical engine, direct connected to 25-KW. generator. Andrew McLean Co., Passaic, N. J., one 6 × 6 vertical engine.

THE BUSINESS of the Westinghouse Machine Co., Pittsburg, Pa., during the month of February has continued to show the most encouraging signs of improvement. A number of excellent orders have been received during the last week in the various departments. There is, as a result, much greater activity in the shops at East Pittsburg, and unusually large shipments were sent from the work on export delivery, including several large steam engines. One of these shipments, consisting of five 125-HP. compound engines, was consigned to Takata & Company, the Japanese agent of the Westinghouse Companies in Tokio, for delivery to a manufacturing plant in Canton, China. Another compound engine of 500-HP. capacity also included in this shipment was consigned to the same firm for delivery to the Southern Japanese Railway Company, of Kaisha, Japan. The receivers of the company are reporting very encouraging progress with the plan of rehabilitating the company, and it is now expected that its affairs will again be in the control of the stockholders within a very few days.

THE EXECUTIVE COMMISSION of the International Exhibition of Industries and Labor to be held in Turin in the year 1911, considering the heavy damages inflicted by fire upon some preceding shows, has opened a competition among such persons as can supply material fit to render fireproof or at least non-inflammable timber and textiles. The competition regulations are as follows:

(1) The proposed materials will be divided into two categories, according to their application either to timber or to fabrics.

For timber, a speedy and cheap method of superficial coating will be preferred; however, other processes will not be excluded. The coating material must permit any polychromic decoration.

For textile articles, intended to be solely of vegetal fiber, the application of the stuff either on yarn, or on undyed or dyed fabrics is left optional, provided their strength, suppleness and coloring are not altered.

(2) Materials must be forwarded prepaid within September, 1908, to the "Direzione del Laboratorio di Chimica Docimastica del Regio Politecnico di Torino," in quantity sufficient to protect at least fifty square meters of timber or fabrics. Materials not forwarded in the term above stated will be excluded from competition.

The Executive Commission is entitled to purchase the material which will be judged worthy of an award, in the quantity required for all the exhibition buildings. Therefore the competitors are to accompany their sendings with a notice stating the quantity they may engage themselves to supply and the price thereof, franco Turin; for this they will be liable to the Committee. Also the competitor must give in writing every direction for applying his material in trials and identifying same, in case the supply be eventually adjudged to him.

(3) The Jury appointed by the Executive Committee of the Exhibition will judge promptly and without appeal the materials submitted to them in a technical, practical and economical view, making all trials they may think proper.

Competitors are at liberty to attend the trials either personally or by proxy.

(4) The Jury will have at their disposal: Two gold medals; two silver medals presented by the "Societa Promotrice dell' Industria Nazionale." These are to be the first and second prizes in each of the two categories of the competition; and a sum of 4,000 lire to be eventually distributed among the winners of the competition and those recognized worthier of awards in consideration of recent researches made or noteworthy results obtained. T. Villa is President of the Executive Commission.

TRADE PUBLICATIONS.

HOISTING MACHINERY.—The National Equipment Co., Chicago. Paper; 3¼ × 6 ins.; pp. 4; illustrated.

This contains a list of the hoisting and handling machinery which is the company's specialty.

TURBINE WATER WHEELS.—Barnard & Leas Mfg. Co., Moline, Ill. Illustrated catalog No. 1. 6 × 9 ins.; pp. 55; illustrated.

All data regarding the Moline-McCormack turbine water-wheel, which is made by the Barnard & Leas Mfg. Co., are contained in this catalog, together with much general information on hydraulic engineering.

PORTLAND CEMENT.—Universal Portland Cement Co., Chicago and Pittsburg. Paper; 6 × 9 ins.; pp. 8; illustrated.

This consists mainly of a series of views of structures in which the Universal cement has been used; they include bridge piers and arch bridges, retaining walls, buildings, and lock and dam work at the power plant of the Chicago drainage canal.

CONTRACTORS AND ENGINEERS.—George W. Jackson, Inc., Chicago, Ill. 10½ × 4½ ins.; pp. 24; illustrated.

George W. Jackson, Inc., are engineers and contractors for bridges, structural steel, machinery, steel sheet piling, steel ribs and lagging, subways, tunnels and heavy foundations. This booklet describes some of these works they now have under construction.

ROLLING DOORS AND SHUTTERS.—Jas. G. Willson Mfg. Co., 3 West 29th St., New York, and Norfolk, Va. 12 × 9 ins.; pp. 80; illustrated.

According to the preface: "This book has been prepared for the use of engineers and architects, to assist them in making suitable preparation for the installation of rolling doors and shutters in different types of buildings."

FLOUR MILL EQUIPMENT.—Allis-Chalmers Co., Milwaukee, Wis. "The Keewatin Flour Mills." 8 × 10½ ins.; pp. 64; illustrated.

The modern equipment of a flour mill is a complicated matter. The Allis-Chalmers Company have made an especial study of such work and have presented in this catalog a description of the principal mills that they have equipped, notably the Keewatin Flour Mills of the Lake of the Woods Milling Co., at Keewatin, Ont.

PILE-DRIVING MACHINERY.—Vulcan Iron Works, 28 North Irving Ave., Chicago. Paper; 5 × 7 ins.; pp. 48; illustrated.

A variety of pile drivers are shown, special designs having extension leaders and swiveling leaders for driving batter piles, while light machines for fence-post work are also included. The machines handle either steam hammers or drop hammers. Fittings for pile drivers are listed, and there is a special apparatus for sawing off piles under water.

SURVEYING INSTRUMENTS.—The A. Lietz Co., 632 Commercial St., San Francisco, Cal. 10th edition. 6 × 9 ins.; pp. 195; illustrated.

In this "Manual A of Modern Surveying Instruments and Their Uses, Together with a Catalog and Price-List of Scientific Instruments," the Lietz Co. present a statement of their ability to once more handle the trade of the western coast. Since the earthquake and fire they have entirely rebuilt and reequipped their building.

CRANES.—Pawling & Harnischfeger, Milwaukee, U. S. A. Paper; 12 × 9 ins.; pp. 139; illustrated.

This is a general catalog of overhead electric traveling cranes, with particulars of their equipment. A large part of the book is devoted to views of shops, yards, etc., equipped with these cranes. Extension cranes (with the trolley running beyond the runway), jib cranes and traveling trolley-hoists are also included, as well as hand-operated traveling cranes.

LOCOMOTIVES.—The Lima Locomotive & Machine Co., Lima, Ohio. Catalog No. 15. 9 × 16 ins.; pp. 78; illustrated.

Completely detailed and tabulated descriptions of the Shay geared and rod locomotives of all types and sizes are contained in this pamphlet.

SWITCHSTANDS.—U. S. Wind Engine & Pump Co., Batavia, Ill. Paper; 5½ × 9 ins.; pp. 15; illustrated.

The switchstand is equipped with bevel-gear operating mechanism, and may be fitted with targets or a semaphore blade. A train-order signal is also shown.

SPRINGS.—The Standard Steel Works, Harrison Bldg., Philadelphia, Pa. 9 × 6 ins.; pp. 35; illustrated.

This catalog presents a few of the more important types of springs now in use on steam and electric railways and illustrates the conditions under which these springs are manufactured.

OUTSIDE LIGHTING APPARATUS.—Alexander Milburn Co., 507 Lombard St., Baltimore, Md. Paper; 6 × 9 ins.; pp. 16; illustrated.

This pamphlet shows several forms of acetylene generator and burner outfits for contractors and railroads and wherever it is necessary to provide strong illumination for short periods. The prices and general methods of use are given.

EXPANDED METAL FOR REINFORCING CONCRETE.—The Northwestern Expanded Metal Co., 930 Old Colony Building, Chicago. Paper; 9 × 6 ins.; pp. 16; illustrated.

Tests of concrete beams and girders with reinforcement of steel T-bars and expanded metal are here described and tables of safe loads of various spans and sections are given. A style of column reinforcement of a similar combination is also shown.

WINDMILLS, TOWERS, TANKS, ETC.—Flint & Walling Mfg. Co., Kendallville, Ind. Cloth; 5 × 9 ins.; pp. 251; illustrated.

A variety of other water-works supplies, besides windmills, towers and tanks, are illustrated and described in this catalog. Special attention may be called to the "New Star" steel windmill, Model 7, the details of which are clearly shown by photographic views of various special parts.

METER BOX FOR SIDEWALK SETTING.—McWane Pipe Works, Lynchburg, Va. 4-page folder, 3¼ × 5¼ ins.

An illustration shows a meter box which may be formed of vitrified cement or cast-iron pipe provided with a cast-iron cover. Another cut shows the "positive lock" of the hinged cover. Prices are quoted. The circular states that 5,000 of these boxes have just been furnished to the city of Washington, D. C.

WATER WHEELS AND MOTORS.—The Pelton Water Wheel Co., 125 Main street, San Francisco, Cal. Paper; 6 × 9 ins.; pp. 108; illustrated.

This is a descriptive pamphlet of the Pelton jet or impact wheel and its application to electric power plants, pumps, air compressors, rope transmission, etc. There are numerous tables of hydraulic information, and also tables of the speeds and power of wheels of different sizes. Lists of installations are given, and several plants are illustrated.

SPIRAL RIVETED PIPE AND STEEL PIPE FLANGES.—American Spiral Pipe Works, Chicago, Ill. Paper; 8 × 10¾ ins.; pp. 94; illustrated.

The Taylor spiral riveted pipe is briefly described, and there are views showing its use for water supply, hydro-electric plants and mining work. A table of sizes, weights and pressures is given. The greater part of the pamphlet is devoted to forged and rolled steel flanges for pipe, tanks and boilers. Prices, dimensions and full-size cross-sections are given.

SULPHATE OF IRON AS A WEED ERADICATOR.—American Steel & Wire Co., Chicago and New York. Paper; 9 × 11½ ins.; pp. 12; illustrated.

Text and some handsome illustrations set forth the use of one of the by-products of the company named above, in keeping down weeds. Spraying machines for applying the solution are also illustrated and described. These machines might possibly be useful for other purposes; anyhow, they are interesting examples of engineering design applied to farm machinery.

WOOD PRESERVATION.—International Creosoting & Construction Co., Galveston, Tex. Cloth; 7½ × 4¾ ins.; pp. 90; illustrated.

The company's plants are described, with brief particulars of several creosoting processes and the zinc process which it can employ as required. The merits of creosoting for piles, poles, ties, paving blocks are set forth. There is also a list of customers and the class of work done for each. The illustrations include several specimens of treated and untreated timber.

STEAM AND ELECTRIC SHOVELS.—Vulcan Iron Works Co., Toledo, Ohio. Leather; 9¼ × 6¼ ins.; pp. 116; illustrated.

The equipment and special features of the Vulcan shovels are described, and lists of dimensions are given for a number of machines. The numerous illustrations show traction and railway machines in service on various classes of work. Among the special designs is a self-propelling steam shovel mounted on a four-wheel truck and operated by one man. This has a vertical boiler with horizontal water tubes. Shovels operated by electric motors are also shown.

ELEVATING, CONVEYING AND POWER TRANSMITTING MACHINERY.—H. W. Caldwell & Son Co., Chicago. Cloth; 6¼ × 9¼ ins.; pp. 736; illustrated.

This is an illustrated catalog and price list of machinery of the class noted, and also of the appliances and supplies used in connection with it, such as pulleys, driving rope, chain and other belting, shafts, gears, etc. The elevators and conveyors include spirals, traveling platforms, belts, and link-belt chains fitted with scrapers of different patterns. The catalog is extremely comprehensive, and includes tables of prices and code words for the various sizes or kinds of each article.

PUMPS, TANKS AND WATER STATION EQUIPMENT.—U. S. Wind Engine & Pump Co., Batavia, Ill. Paper; three pamphlets; 7 × 10¼ ins.; pp. 48; 7 × 10 ins.; pp 24; 5¼ × 7¾ ins.; pp. 128; all illustrated.

The first of these pamphlets is an illustrated catalog and price list of wooden tanks, tank fittings, pipe, pumps and water columns for railway water stations. The second relates to tanks especially. The third is a comprehensive catalog of pipe, deep-well equipment and tools, valves and pipe fittings, hand pumps, and steel and wooden tanks and troughs. A separate folder is devoted to railway water columns.

STEAM SHOVELS.—Atlantic Equipment Co., New York and Chicago. Paper; 9 × 6 ins.; two pamphlets; pp. 28 and 42; illustrated.

The Atlantic shovel resembles a tank locomotive on a heavy flat car, with boom and A-frame at the front end. A locomotive type of boiler is used, with side tanks and rear cab; a small cab for the engineman is at one side of the machine, near the boom. The special features of the steam shovel are described and illustrated, while numerous half-tone engravings show the machines at work on railway construction and improvement, irrigation canals, quarries, etc., and handling materials which range from stiff clay to rock. The smaller pamphlet also contains a number of testimonial letters. Some of the machines have a clear lift of 16 ft.

PILE DRIVERS, WRECKING CRANES AND LOCOMOTIVE CRANES.—The Industrial Works, Bay City, Mich. Paper; three pamphlets; 9 × 12½ ins.; pp. 14, 282 and 39; all illustrated.

These handsome pamphlets illustrate and describe various designs of machines of the three respective classes. The pile drivers are for railway work, with leaders carried by a horizontal frame mounted on a turntable on the car and also capable of lateral adjustment for driving batter piles. The wrecking cranes are of 25 to 100 tons capacity, and may be equipped with propelling machinery. Some of the illustrations show the cranes in use at wrecking and bridge erecting operations. The locomotive cranes are of various types for railway and industrial work, handling coal and ore, structural steel and large timbers, etc. They are of 5 to 100 tons capacity, and are shown in use at quarries, steel works, lumber yards, laying water pipe, erecting steel structures, etc. Lists of customers are given.

STEAM SHOVELS, DREDGES AND DITCHING MACHINES.—The Marion Steam Shovel Co., Marion, O. Leather; 9 × 6 ins.; pp. 111; illustrated.

The greater part of this publication is devoted to steam shovels of various sizes and designs. The numerous half-tone, full-page engravings show the machines in use for railway and other construction work, canals, stripping, ore excavation, tunnels, quarries, etc. Two of the views show machines at work on the Moscow, Jaroslav & Archangelsk Ry. in Russia and the Zanzibar Ry. in East Africa. Special machines have 40-ft. booms and a very high lift. Some are mounted on traction wheels with broad tires and steel disk centers. Other machinery listed includes railway ditching machines, ballast unloaders, dipper and ladder dredges, and floating or land machines for drainage ditches. Some of the dredges are used in gold mining and are equipped with apparatus for recovering the gold from the dredged material.

SWITCHSTANDS.—Morden Frog & Crossing Works, Chicago. Paper; circular; 8½ × 11 ins.; illustrated.

This relates to the Unity switchstand of the drop-lever type, with connections operating a distant signal and a lock rod independent of the switch rod.

STEEL REINFORCING BAR.—Arthur Priddle, Builders' Exchange Building, San Francisco, Cal. Circular; 8½ × 11 ins.; illustrated.

This is a flat bar with oval holes punched in such a way as to form lugs or flanges to make a mechanical bond with the concrete. The bar may also be twisted, and a netting may be framed by weaving smaller cross bars through the holes.

WIRE ROPE AND FITTINGS.—American Steel & Wire Co., Chicago and New York. Paper; 5¼ × 7¾ ins.; pp. 75; illustrated.

This is an illustrated catalog of wire rope of various kinds for standing, haulage and transmission purposes, together with couplings, hooks, sheaves and blocks. Among the specialties is a flat or band rope, used principally for mine hoisting where long and large ropes are required.

BRIDGE & STRUCTURAL WORK.—Kenwood Bridge Co., 1416 First National Bank Building, Chicago. Paper; 9 × 6¼ ins.; pp. 40; illustrated.

This pamphlet consists almost entirely of excellent half-tone full-page engravings illustrative of truss and plate girder structures, mainly for electric railways. The examples of steel structural work are more numerous and varied, including building for industrial plants, coal and ore unloading plants, grain elevators, water towers, coal tipples and trainsheds.

ENGINEERING AND SURVEYING INSTRUMENTS.—Wm. Ainsworth & Sons, Denver, Colo. Paper; 6¼ × 9¼ ins.; pp. 64; illustrated.

The first part of this descriptive catalog relates to the special features and the points of superiority claimed for this firm's instruments, and is accompanied by illustrations of detail parts. A number of designs of transits and theodolites are illustrated and described, some of which have interchangeable auxiliary telescopes, and there is a price list of extra parts and attachments. The Brunton pocket transit, the Ainsworth precision balances for assaying work, etc., and a number of designs of aneroid barometers are also included.

WATER-WHEELS.—Jared R. and James S. DeRemer, Denver, Colo. Stiff paper; 6¾ × 10 ins.; pp. 52; illustrated.

The water-wheel here described is styled by the makers a tangential impact wheel. The buckets are provided with partitions called "horizontal splitters," which, the catalog states, "stop the stream of water dead after issuing from the jet, overcoming that 'glancing' blow ever present in feeding a circle through a tangent, and characteristic of all other forms of tangential wheels." At right angles to these partitions is a "water wedge" which divides the stream to the right and left, where it "is taken up by the concave sides of the bucket, causing a continuous solid blow until the stream is cut off by the succeeding bucket," after which the dead water is so discharged at either side and forward that none of it "comes in contact with the succeeding buckets." In addition to these features of the bucket, "water breaks" are placed at the side of the wheel case, "to take up and deflect the discharging water." After describing the DeRemer wheels in some detail, the pamphlet gives some general information on water supply for power and other purposes, and also some water-wheel tables—the latter, it is stated, applying to DeRemer wheels alone. Beyond these tables is a variety of other information useful to the water-power engineer.

For other Proposal Advertisements see pages 47, 48, 49, 50, 54, of Advertisements and Construction News page 98.

BUILDING.

Rochester, N. Y.

Sealed proposals for the construction, complete, including heating, plumbing and electric work, endorsed "Proposals for Superintendent's Residence and Changing Old Boiler House to Kitchen, Rochester State Hospital," will be received by the State Commission in Lunacy, at the Capitol, Albany, N. Y., up to 3 p. m., on the 8th day of April, 1908, when they will be opened and read publicly.

Proposals shall be accompanied by a certified check in the sum of five per cent. of the total bid, and the contractor to whom the award is made will be required to furnish surety company bond in the sum of five thousand dollars for each building. The right is reserved to reject any and all bids.

Drawings and specifications may be consulted and blank forms of proposals obtained at the Rochester State Hospital, Rochester, N. Y., or at the office of the State Architect. Complete sets of plans and specifications will be furnished to prospective bidders, upon reasonable notice to, and in the discretion of, the State Architect, Franklin B. Ware, Albany, N. Y.

T. E. McGARR, Secretary,
12-3t State Commission in Lunacy.

CONCRETE SIDEWALKS AND PIPE SEWERS.

Bogota, N. J.

Sealed Proposals will be received by the Floral Heights Realty Company at the office of Lemuel Lozier, Engineer, Hackensack, N. J., on Saturday, March 28, 1908, at 2 o'clock p. m., for the construction of about 3,400 ft. 8-in. pipe sewer; about 920 ft. 12-in. pipe sewer; about 16 manholes.

Also about 8,250 lin. ft. 4-ft. wide concrete sidewalks; about 1,760 lin. ft. concrete curb; about 1,460 lin. ft. 3-ft. concrete gutter; about 2,260 square feet concrete crossings and gutters.

Drawings and specifications can be seen and blank forms of proposals obtained at the office of Lemuel Lozier, Engineer, Bank Building, Main and Mercer Sts., Hackensack.

The Floral Heights Realty Co. reserves the right to reject any or all bids.

R. H. McCREADY,
12-1t President.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., March 16, 1908.—Sealed proposals will be received at this office until 3 o'clock p. m. on the 28th day of April, 1908, and then opened for the construction (complete) of the U. S. Post-office building at Crookston, Minnesota, in accordance with drawings and specifications, copies of which may be had at this office or at the office of the Postmaster at Crookston, Minn., at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 12-2t

U. S. ENGINEER OFFICE, Boston, Mass., March 18, 1908.—Sealed proposals for construction of superstructure of breakwater at Sandy Bay, Mass., will be received here until 12 M., April 17, 1908, and then publicly opened. Information on application. EDW. BURR, Lt.-Col. Engrs. 12-4t

Situations Wanted

Mechanical and Electrical Engineers.

MECHANICAL ENGINEER (29) wants to learn surveying; desires position with a surveying party; has some experience; good draftsman; chance to learn appreciated with regard to salary. Address "M. B. 12," Engineering News, New York. 12-1t

Surveyors.

RODMAN, experienced on location, seeks similar position. Address "M. A.," Box 77, 617 Sixth Ave., New York. 12-1t

Draftsmen.

DRAFTSMAN (28), past employment with mining and civil engineers, experienced in layout of industrial plants, accurate detailer, technical graduate; references from past and present employers. Address "K. B. 12," Engineering News, New York. 12-4t

Superintendents, Misc., etc.

FOREMAN, age 33, desires position; 11 years' experience on concrete, foundation, excavation, reinforced concrete, sewer, railroad, steam shovel, grading, water-works, dams; all lines sewer sheeting; best references. Address "L. B. 12," Engineering News, New York. 12-2t

FOR SALE

FOR SALE.

Lidgerwood Cableway complete; 2 yard Improved Chicago Cube Concrete Mixer; 12 ton 36-in. gage, 10 × 12 Vulcan Dinkey Locomotive; Electric Outfit, and Pumps, Boilers, etc.

Above plant is located near Pittsburg, Pa., ready for immediate shipment. For particulars, address THE COLONIAL TRUST CO., Receiver for Baker Contract Co., Pittsburg, Pa. 12-4t

"WANT"

Advertisements in ENGINEERING NEWS cost 1½ cents a word an insertion for "Situations Wanted" and 3 cents a word for "Situations Open" and "Miscellaneous Wants." Read them weekly—they will help you.